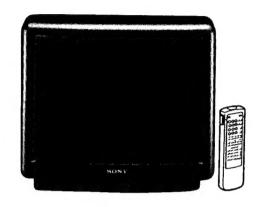
# KV-X2151D

### SERVICE MANUAL

AEP Model Chassis No. SCC-E18Y-A



# AE-1C CHASSIS

MODELS OF T	THE SAME SERIES
KV-X2151D	KV-C2551D/C2951D
KV-C2121D	KV-A2111D/A2511D
KV-A2911D	KV-E2521D/E2921D

#### **SPECIFICATIONS**

[KV-X2151D]

Television system

Color system

B/G/H PAL, SECAM, NTSC3.58, NTSC4.43

Stereo system

**GERMAN** stereo

Channel coverage

CABLE TV (1): \$1-\$41

CABLE TV (2): S01-S05, M1-M10, U1-U10

Picture tube

Hi-Black Trinitron tube Approx. 54.5 cm (21 inches)

(Approx. 51 cm picture measured diagonally)

100 ° -degree deflection

Inputs / Outputs Terminals

**REAR** 

- 21 pin Euro connector

-Inputs for audio and video signals

(CENELEC standard)

-Inputs for RGB

-Outputs of TV video and audio signals

G-2/-921-pin Euro

connector

-Inputs for audio and video signals

-Inputs for S-video

-Outputs for video and audio signals

(selectable)

◆ Audio output(vartable)

-phono jacks

◆ Audio inputs (L,R) phono jacks

S-video Inputs-4pin DIN

Headphone jack: stereo mini jack

Sound output

Power consumption

30 W + 30 W 83 Wh

**Dimensions** 

Approx.  $512\times449\times456$  mm (w/h/d)

Weight

Approx. 24kg

[RM-816]

Remote control system

infrared control

Power requirements

3V dc

2 batteries IEC designation

R6 (size AA)

**Dimentions** 

Weight

Accessories supplied

Approx.  $75 \times 221 \times 23$ mm(w/h/d) Approx. 230g (including batters)

IEC designation R6 batteries(2)

Supplied accessories

RM-816 Remote Commander (1)

IEC designation R6 batterie: (2)

Design and specifications are subject to change without notice.

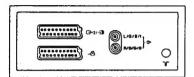
#### **FRONT**

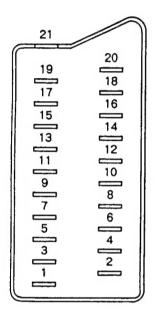
◆ Video input phono jack



TRINITRON®COLOR TV SONY

#### 21 pin connector (→5 , 3 +2/-5)





Pin No.	1	2	Signal	Signal level
1	0	0	Audio output B (right)	Standard level: 0.5Vrms Output impedance: Less than 1kohm <sup>a</sup>
2	0	0	Audio Input B (right)	Standard level: 0.5Vrms Input Impedance: More than 10kohms*
3	0	0	Audio output A (left)	Standard level: 0.5Vrms Output impedance: Less than 1kohm*
4	0	0	Ground (audio)	
5	0	0	Ground (blue)	
6	0	0	Audio input A (left)	Standard level: 0.5Vrms Input Impedance: More than 10kohms*
7	0	•	Blue input	0.7V ± 3dB, 75ohms, positive
8	0	0	Function select (AV control)	High state (9.5 - 12V): Part mode Low state (0 - 2V): TV mode Input Impedance: More than 10kohms Input capacitance: Less than 2 nF
9	0	0	Ground (green)	
10	0	0	Open	
11	0	•	Green	Green signal: 0.7V± 3dB, 75ohms, positive
12	0	0	Open	
13	0	0	Ground (red)	
14	0	0	Ground (branking)	
45	0	-	Red input	0.7V ± 3dB, 75ohns, positive
15	-	0	(S signal) croma input	0.3V ± 3dB, 75ohns, positive
16	0	•	Blanking Input (Ys signal)	High state (1 - 3V) Low state (0 - 0.4/) Input Impedance: 750 hms
17	0	0	Ground (video output)	
18	0	0	Ground (video input)	
19	0	0	Video output	1V ± 3dB, 75ohms positive Sync: 0.3V ( − 3, √0dB)
20	0	-	Video Input	1V ± 3dB, 75ohms positive Sync: 0.3V ( − 3, + 0 dB)
20	-	0	Video Input/Y (S signal)	1V ± 3dB, 75ohms positive Sync: 0.3V ( − 3, +0 dB)
21	0	0	Common ground (plug	, shield)

O connected

unconnected (open)

≠ at 20Hz - 20kHz

#### 4 Pin Connector ( )

Pin No	Signal	Signal level
1	Ground	
2	Ground	
3	Y (S signal) input	1V ± 3dB 75ohm, positive Sync 0.3V <sub>+10</sub> dB
4	C (S signal) input	0.3V ± 3dB 75ohm, positive

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#### (CAUTION)

SHORT CIRCUIT THE ANODE OF THE PICTURE TUBE AND THE ANODE CAPTOTHE METAL CHASSIS, CRT SHIELD, OR CARBON PAINTED ON THE CRT, AFTER REMOVING THE ANODE.

#### WARNING!!

AN ISOLATION TRANSFORMER SHOULD BE USED DURING ANY SERVICE TO AVOID POSSIBLE SHOCK HAZARD, BECAUSE OF LIVE CHASSIS.

THE CHASSIS OF THIS RECEIVER IS DIRECTLY CONNECTED TO THE AC POWER LINE.

#### **SAFETY-RELATED COMPONENT WARNING!!**

COMPONENTS IDENTIFIED BY SHADING AND MARK  $\Delta$  ON THE SCHEMATIC DIAGRAMS, EXPLODED VIEWS AND IN THE PARTS LIST ARE CRITICAL TO SAFE OPERATION. REPLACE THESE COMPONENTS WITH SONY PARTS WHOSE PART NUMBERS APPEAR AS SHOWN IN THIS MANUAL OR IN SUPPLEMENTS PUBLISHED BY SONY.

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# SECTION 1 GENERAL

#### 1-1. SWITCHING ON/OFF

#### 1-2. PRESETTING

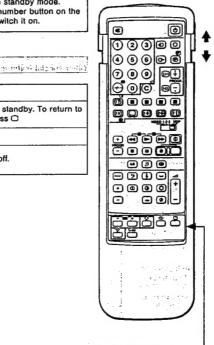
After you have completed the basic preparation your TV is ready to be connected to the mains power supply (220/240V AC, 50Hz).

The TV will turn off.

	How to turn the TV on	MI SAIT TO A PROBABILITY OF SHIP
	Action	Result
	Press ⊕ on the TV.	The TV will turn on.  Note: If the screen remains blank, the TV may be in the standby mode.  Press O or any number button on the commander to switch it on.
0 0 0 0 0	How to turn the TV off	gea <b>લ</b> ફેલ ફ્રોફર્સ છે. જ્યારે
0000	A Temporarily	
	Press & to enter standby mode.	The TV will be in standby. To return to the TV mode press O

**B** Completely

Press O on the TV.



Note: These buttons should be used in preset mode only.

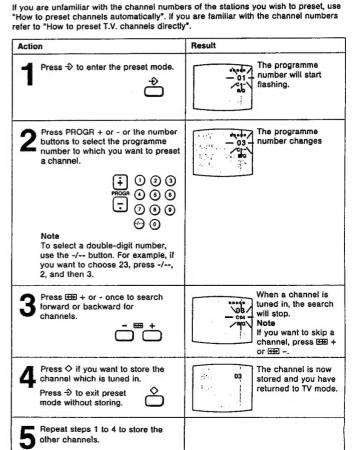
After you have installed the TV you need to preset TV channels.

TV stations broadcast their channels at certain frequencies. You must preset these channels to programme numbers on the TV before you can watch the TV programmes.

There are 60 spaces for storing these channels.

Slide open the full function side of the remote commander to reveal preset buttons.

How to preset channels automatically



#### How to preset channels directly

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Action	Result
Press ⇒ to enter the preset mode.	The programme number will start flashing.
Press PROGR +/- or the number buttons to select the programme number on which you want to preset a channel.    1	The programme number changes.
3 Press C.	The indication "C" starts flashing on the display.
Select the channel number with two digits (e.g. 04) by pressing the number buttons.  1 2 3 4 5 6 7 8 9  Note Press the second number within 5 seconds after the first one, otherwise the operation will be cancelled.	The channel number changes.  Note if you have made a mistake the letter "X" will appear. Repeat step 4 again.
Press ♦ to store the channel which is tuned in.  Press ♦ to exit the preset mode without storing.	01 The channel is now stored and you have returned to TV mode.

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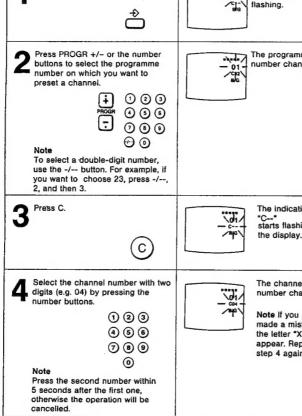
How to Name a Station You can use up to five characters to "name" a channel or station (i.e. BBC1).

Action		Result	
Select a programme number you want to name by pressing the PROGR +/- or the number buttons	1 0 3 3 PROGR 7 9 9 9 9 9 9	08	The selected programme number will appear.
2 Press ->.	<b>\$</b>	-\vd-/ 01- <	The programme number starts flashing.
3 Press O.	0	08 C31 B/G	The first column of the station name indication will start flashing.
Press + or - to select alphabet, a number, or space.		08 C31 B/G	The letters of the alphabet, numbers and the space ("-") will appear sequentially.
5 Press C.	0	I ba Can aro	The first character is now set and the second column will start flashing.
6 Repeat steps 4 and 5	to set each lette	er.	-
<b>7</b> Press ♦.	å	SONY 08	The channel name is now stored and you have returned to TV mode.

You can tune in a channel temporrarily, if it has not been preset.

How to tune in a channel temporarily

Actio	n	Result
1	Press C.	The indication "C" appears on the screen.
2	Select the channel number with two digits by pressing the number buttons (e.g. for channel 4, first press 0, then 4.)	The channel is received, but it is not stored to any programme number.



#### 1-3. BASIC TV OPERATION

Action	Result	
Press ⇒ to enter the preset mod	The programme  - 08  number will start  flashing.	<b>⊒6</b>
number that you want	The programme number changes.	
3 Press Coo.	The lowest channel number appears under the programme number.	000
<b>4</b> Press ♦.	The channel is now stored and you have returned to TV mode.	
Repeat steps 1 to 4 to skip other prog	amme numbers.	
an representative states		
low to Fine Tune Manually		
he picture is distorted, you can fine t	ne the channel manually.	
Action	Result	
Press ∰ + or - repeatedly until the picture looks normal.	The indication ← F → appears on the screen.	
Press → to enter the preset mode.	The programme number starts flashing.	
Prace A	The fine tuning is stored	

Note: Normal tuning can be restored if you preset the channel once more.

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This section introduces you to the basic control functions which are available on the simple side of the remote commander.

#### How to Select Programmes

Before you can select programmes make sure that you have preset channels.

Action	Result
Press PROGR +/- or the number buttons.  To select a double- digit number, use the -/ button. For example, if you want to choose 23, press -/, 2, and then 3.	23 The selected programme is displayed.

### How to Adjust the Volume

Ì	Action	Result
	Press ⊿ + or	The volume markers will appear. and are adjusted accordingly.

#### How to Use additional features

Basic teletext operation

Select

The @button to view the teletext.

The Obutton to request subtitles (P.888).

One of the coloured buttons for fastext operation.

TheObutton to return to TV mode.

For details about teletext operation,

#### How to operate with the buttons on the TV

You can also select programmes and adjust the volume using the P→△→⊕ and →•← +/- buttons on the front of the TV.

For operation, first press the P-A-D button repeatedly so that the P (for programme) or A (for volume) indication appears on the screen, and then adjust with the →• ← +/- buttons.

Note: To restore to factory set level press → • ← +/- together.

#### How to view the video input picture

Press - To return to the TV mode, press O. For further details.

#### 1-4. ADVANCED TV OPERATION

A-00-B

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This section shows you how to use convenient features and how to adjust the picture and sound to your taste.

Use the full-function side of the Remote Commander.



You can enjoy the following convenient features.

How to	Action	To resume normal picture/sound
Display on-screen indications	Press <b>④</b>	Indications disappear after some seconds
Display programme numbers	Press	Press ⊕ twice again.
Mute the sound	Press CK.	Press 🗱 again.
Select a language in bilingual programmes.	Press A/B. The selected mode of the A-CD-B indicator on the TV lights up.	Press A/B.
Set the sound for music listening.	Press /].	Press ∏ again.
Use the space sound (special acoustic effect)	Press ↔	Press ⊕ again.
Request the time	Press ②.	Press @ again.

#### How to adjust the picture and sound

Although the picture and sound have been adjusted at the factory, you might want to adjust them to your own taste. To do this, please follow the steps below.

To Adjust:	Press:	Then:	Result: (+ ←→ -)
Picture:			
Colour Intensity	3	(±)	More ← Less
Picture Contrast	•		More ←→ Less
Brightness	٥		Bright ← Dark
Sound:			
Bass	2.	[]	More ← Less
Treble	6	+	More ← Less
Balance	<u> </u>		More Right ← More Le

To reset the picture and sound to factory set levels press ----.

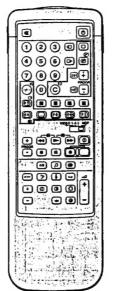
#### On the set:

Press --- +/- buttons simultaneously.

#### 1-5. TELETEXT OPERATION

TV stations broadcast teletext programmes via the TV channels. To receive teletext programmes, use the buttons indicated in green on the full side of the Remote Commander.

With the simple side of the Remote Commander, only the basic operation is possible.



#### How to View the Teletext Action Result The channel changes on the screen. Select the channel which carries the teletext service you wish to see. If the teletext signal 2 Press €. is not broadcast, then p100 is displayed. The numbers are entered on the Input three digits for the page number using the number buttons. screen. The requested page will appear in a few seconds. If you make a mistake, type in any three digits, then re-enter the correct page number. To return to the TV mode. Press O. To change the teletext channels First press O to return to the TV mode, then repeat steps 1 to 3.

Note

If the signal of the TV channel is weak, teletext errors may often occur.

#### How to Use the Advanced Features of Teletext

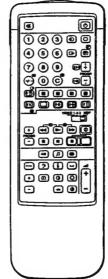
How to	Action	Result (On-screen display)
Request the index page.	Press @ (INDEX).	INDEX 2:: The index page appears.
Request the subtitle page (p888).	Press O.	The subtitle page is displayed (p888).
Access the next or preceding page.	Press ⊕ (PAGE +) or ⊕ (PAGE -).	P201 The next or preceding page appears.



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	ī

How to	Action	Result	
Superimpose the teletext display on the TV programme.	Press ® once if you are in text mode, or press ® twice if in TV mode. To return to the normal teletext display press ® again.	The teletext displays are superimposed on the TV programmes.	
Prevent a teletext page from being updated or changed.	Press 69 (HOLD).  To resume normal teletext reception, press @ (TEXT/MIX).	The HOLD symbol (  ) appears on the screen and the chosen sub-page is held until you cancel.	
Enlarge the teletext display.	Press ⊕ once to enlarge the upper half. Press twice to enlarge the lower half.  Press again to restore the normal display.	The upper half is enlarged.	
Reveal concealed information (e.g. answers to a quiz).	Press ® (REVEAL).  Press again to conceal the information.	The information is revealed.	
Watch the TV programme while	1. Request a new page.	The numbers are entered.	
waiting for a requested page to be displayed.	2. Press ® (TEXT CL).	The TV programme is displayed, and the requested page number and other teletext data appear at the top of the screen.	
	When the requested page has been captured, the page number remains and the other data disappears.	P201	
	4. Press @ to view this page.	The requested page is displayed.	
Have a requested page displayed at a pre-determined time.	1. Request a desired page.	The requested page is displayed.	
at a pre-cetermined time.	2. Press @ (TP ON).	"T"" appears at the bottom of the screen.	
	Enter the time you want to have the page displayed with four digits using the number buttons. (For example, enter 0730 for 7:30 AM.)	The time is entered on the screen	
	<ol> <li>Press ® (TEXT CL) to watch the TV programme until the requested time.</li> </ol>	At the requested time, the page number will be displayed at the top of the screen, to view this page, press .	
	To cancel the request Display the teletext page, then press (9) (TP OFF).	The request is cancelled. To resume TV mode press O.	

Some of the features may not be available depending on the Teletext service.



#### How to use the FASTEXT Feature

FASTEXT feature allows you to access pages quickly with one key operation. When a FASTEXT page is broadcast, a colour coded menu appears at the bottom of the screen. Each coloured prompt corresponds to the coloured buttons on either side of your Remote Commander.

#### Operation

Action	Result
Press one of the coloured buttons which correspond to the coloured prompt on the teletext.	The selected teletext page appears.

#### Note

Correct FASTEXT operation depends on the necessary signals sent from the TV station.

#### 1-6. OPTIONAL CONNECTIONS / OPERATIONS

#### How to view the video input picture

You can view the picture of video equipment connected to the input terminals by selecting the input mode.

#### Operation

Action	Result	
Press • Prepeatedly to select the desired input.	-61	Symbol for the selected input appears. (See the table below.)

#### Input modes

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	Result
<b>1</b>	Audio/video input through the -® connector.
Ð	RGB input through the -5 connector.
<b>-</b> €2	Audio/video input through the 3-2/-3 connector.
- <b>3</b> 2	S video input (from a VTR equipped with an S video output) through the G+2/-B connector.
<b>-</b> 03	Audio/video input through ⊕and ⊕ jacks on the front.
<b>⊕</b> 3	S video input through the connector on the front (4-pin connector)

#### How to select the Output

The @-2/- connector outputs four kinds of audio/video signals. You have to select one of them as follows.

#### Operation

Action	Result	
Press G- repeatedly to select the desired input.	16-	Symbol for the selected output appears. (See the table below.)

#### **Output modes**

Symbol	Output from
10-	The audio/video signal from the -⊗ 1 connector
2 🕒	The audio/video signal from the ⊕ 2/-59 connector
3 🕒	The audio/video signal from the -€ -€ connectors.
₩Ġ	The audio/video signal from the 'l' aerial terminal.

#### 1-7. ADDITIONAL REMOTE COMMANDER OPERATION

#### How to Control Other Sony Video Equipment

By switching the VIDEO 1/2/3, MDP selector, you can operate most Sony video equipment (Beta VTR, 8mm VTR, VHS VTR, and video disc player).

Set VIDEO 1/2/3, MDP selector according to the desired video

equipment.

VIDEO 1: Beta or ED Beta VTR VIDEO 2: 8mm VTR

VIDEO 3: VHS VTR

MDP: Video disc player

Use the buttons in the indicated area

#### to operate video equipment.

When you use . button, be sure to press this button and the one on the right simultaneously.

#### Notes

- · If your video equipment is furnished with COMMAND MODE selector, set the selector to the same position as the VIDEO 1/2/3, MDP selector on the supplied Remote Commander.
- . If the equipment does not have a certain function, the corresponding button on the Remote Commander will not work.



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Buttons to operate other Sony Video equipment



Parts Identification

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This section briefly describes the buttons and controls on the TV set and on the Remote Commander. For more information, refer to the pages given next to each description.

A TV set - Front		
Sign	Name	
0	Main power switch	
υ	Standby indicator	
а-Ф-в	NICAM indicators	
C	Headphones jack (stereo minijack)	
€€	Input jacks (S-video /video/audio)	
₽→Д→⊕	Function selector (Programme/ volume/input)	
- +	Adjustment buttons for function selector	

TV set - Rear		
Sign	Name	
<b>⊕</b> •2/ <del>-3</del> 9	21-pin Euro-AV connector (S- video/video input, TV/video output)	
<del>-</del> Ö	21-pin Euro-AV connector (RGB/ video input, TV output	
G+	Audio output jacks (phono jacks)	
٦٢	Aerial terminal (IEC type)	

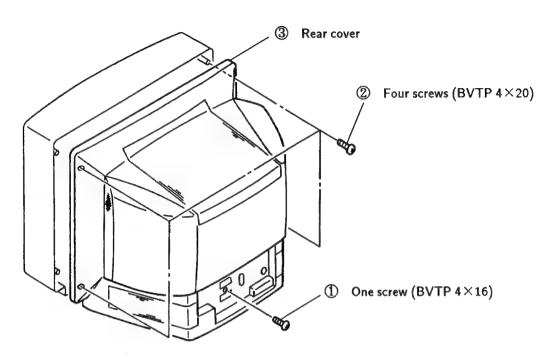
Remote Commander – simple side	
Sign	Name
Ð	input mode selector
₿	Teletext button
	Fastext buttons
0	TV mode selector
Φ	Standby button
1,2,3,4,5, 6,7,8,9, and 0	Number buttons
-/ 1	Double-digit entering button
<b>△</b> +/-	Volume control buttons
PROGR +/-	Programme selector

D Remote Co	mmander - full f	unction side		
Remote Commander full function side  Sign Name				
4X	Mute on/off button			
()		-		
	Standby button			
1,2,3,4,5, 6,7,8,9, and 0	Number buttons			
Ð	Input mode selector			
0	TV power on/TV mode selector button			
G	Output mode selector			
₿	Teletext button			
u	Music button			
A/B	Selector for NICAM			
-/	Double-digit entering button			
С	Direct channel entering button			
€9	Space sound button			
0	Request time display			
78000 0000	Teletext operation buttons			
	Fastext buttons			
•	On-screen display button			
<b>→•</b> ←	Picture and sound adjustment reset button			
<b>△</b> +/-	Volume control			
PROGR +/-	Programme selector			
①① · ③ · · · · · · · · · · · · · · · · ·	Picture and sound controls			
VIDEO 1/2/3, MDP	Video equipment selector			
44>>> = H •	Video equipment operation buttons			
Coo	Programme number clear button			
€	Channel preset button			
- +++	Tuning buttons			
<b>♦</b>	Channel store button			
0	Station label button			

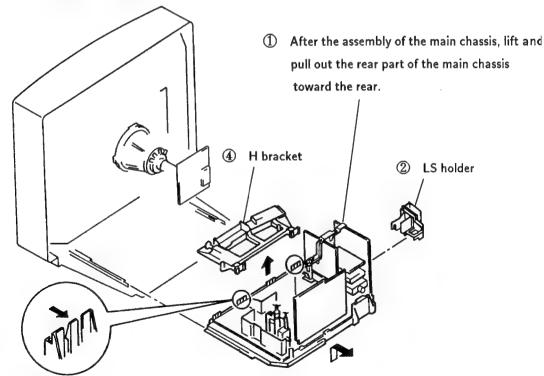
**-10**-

## SECTION 2 DISASSEMBLY

#### 2-1. REAR COVER REMOVAL

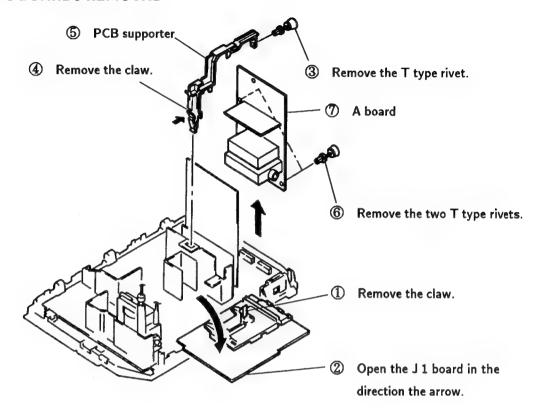


#### 2-2. CHASSIS ASSEMBLY REMOVAL

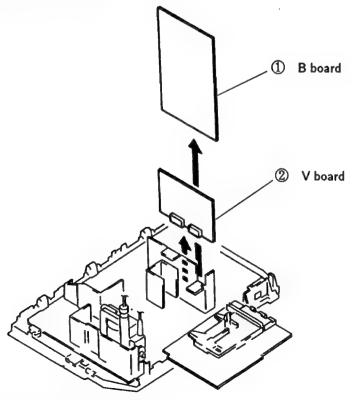


③ Push the two claws of the main chassis in the direction of the arrow and remove the H bracket upwards.

#### 2-3. A AND J 1 BOARDS REMOVAL



#### 2-4. B AND V BOARDS REMOVAL

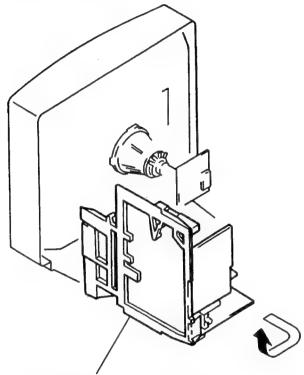


Note: 10 pin extension cable (S-0945-001-0)

#### 2-5. SERVICE POSITION

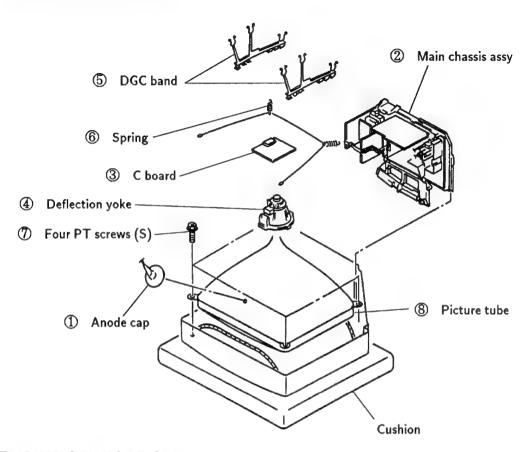
Remove the J 2 bracket from the main chassis assembly and then perform the following servicing.

(Refer to 2-2. CHASSIS ASSEMBLY REMOVAL)



① Remove main chassis assembly in the direction of the arrow.

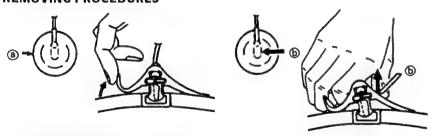
#### 2-6. PICTURE TUBE REMOVAL



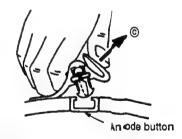
#### REMOVAL OF ANODE-CAP

NOTE: Short circuit the anode of the picture tube and the anode cap to the metal chassis, CRT chield or carbon painted on the CRT, after removing the anode.

#### REMOVING PROCEDURES



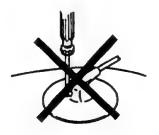
- 1 Turn up one side of the rubber cap in the 2 Using a thumb pull up the rubber cap direction indicated by the arrow @.
  - firmly in the direction indicated by the arrow (b).

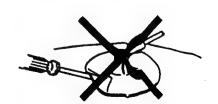


3 When one side of the rubber cap is separated from the angle button, the anode-cap can be removed by turning up the rubber cap and pulling up it in the direction of the arrow ©.

#### HOW TO HANDLE AN ANODE-CAP

- 1 Don't hurt the surface of anode-caps with sharp shaped material!
- Don't press the rubber hardly not to hurt inside of anode-caps! A material fitting called as shatter-hook
- terminal is built in the rubber. Don't turn the foot of rubber over hardly! The shatter-hook terminal will stick out or hurt the rubber.





#### **SECTION 3**

#### SET-UP ADJUSTMENTS

- The following adjustments should be made when a complete realignment is required or a new picture tube is installed.
- These adjustments should be performed with rated power supply voltage unless otherwise noted. The controls and switch below should be set as follows unless otherwise noted:
  - ◆ CONTRASTcontrol ······ 80%(or Normal by commander)

☼ BRIGHTNESS control ..... 50%

Perform the adjustments in order as follows:

#### Preparation:

- Set the side of the unit with the PICTUE TUBE so that it faces east or west in order to reduce the influence of external magnetic force.
- Turn the power switch for the unit ON and erase the magnetic force using a degausser..

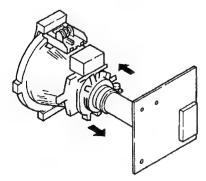
#### 3-1. BEAM LANDING

Demagnetize with a degausser

1. Input a raster signal with the pattern generator.

CONTRAST
BRIGHTNESS normal

- 2. Turn the raster signal of the pattern generator to red.
- 3. Move the deflection yoke backward, and adjust with the purity control so that red is in the center and blue and green are at the sides evenly.
  (Fig. 3-1 3-3)
- 4. Move the deflection yoke forward, and adjust so that the entire screen becomes red. (Fig.3-1)
- 5. Switch over the raster signal to blue and blue and confirm the condition.
- 6. When the position of the deflection yoke is determined, tighten it with a deflection yoke mounting screw.
- 7. When landing at the corner is not right, adjust by using the disk magnets. (Fig.3-4)



**—** 15 -

Fig.3-1

- 1. Beam Landing
- 2. Convergence
- 3. Focus
- 4. Screen (G 2) and White Balance

Note: Test Equipment Required.

- 1. Color bar/Pattern Generator
- 2. Degausser
- 3. DC Power Supply
- 4. Digital multimeter
- 5. Oscilloscope

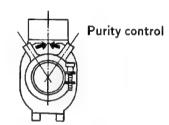


Fig.3-2

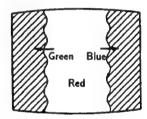
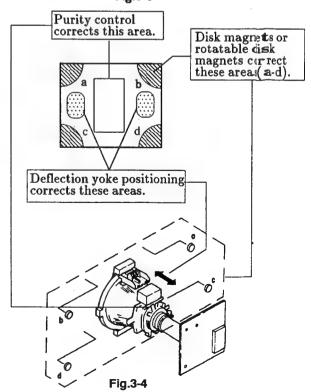


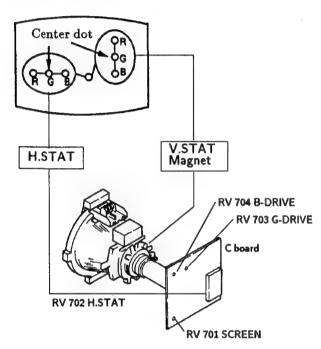
Fig.3-3



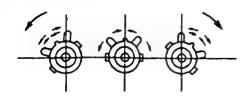
#### 3-2. CONVERGENCE

#### Preparation:

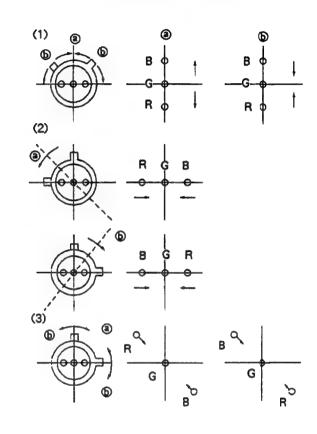
- Before starting, perform FOCUS, H.SIZE, and V.
   SIZE adjustments.
- Set BRIGHTNESS control to minimum.
- Feed in the dot pattern.
- (1) Horizontal and Vertical Static Convergence



- 1. Adjust H.STAT VR to converge red, green and blue dots the in center of the screen. (Horizontal movement)
- 2. Adjust V. STAT magnet to converge red, green and blue dots in the center of the screen. (Vertical movement)
- 3. If the red, green and blue dots do not converge on the center of screen with H.STAT VR, perform horizontal convergence adjustment using H.STAT VR and V.STAT magnet as shown below. (In this case, H.STAT VR and V.STAT magnet effect each other.)
- Tilt the V.STAT magnet and adjust static convergence to open or close the V.STAT magnet.



4. When the V.STAT magnet is moved in the direction of arrow (a) and (b), red, green and blue dots move as shown below.

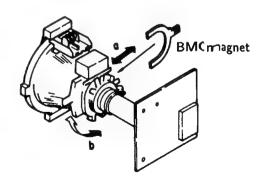


If the red and blue dot do not converge with green dots, perform following steps.

Move BMC magnet (a) to correct insufficient H.static convergence.

Rotate BMC magnet (b) to correct insufficient V.static convergence.

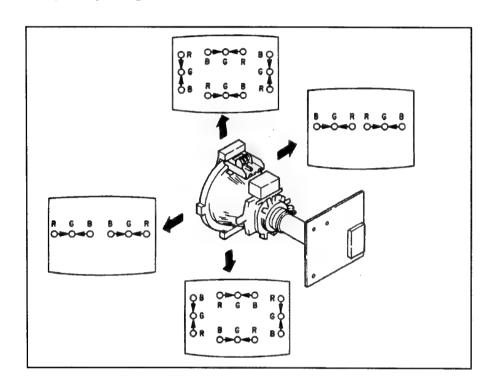
In either case, repeat Beam Landing Adjustment.



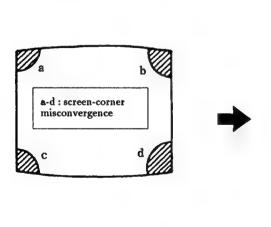
### (2) Dynamic Convergence Adjustment Preparation:

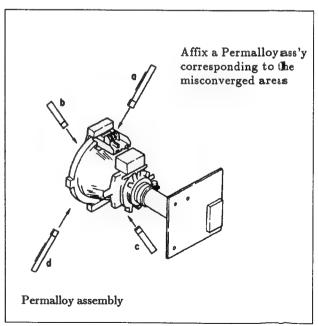
- Before starting perform Horizontal and Vertical static convergence Adjustment.
- 1. Slightly loosen deflection yoke screw.
- 2. Remove deflection yoke spacers.

- 3. Move the deflection yoke for best convergence as shown below.
- 4. Tighten the deflection yoke screw.
- 5. Install the deflection yoke spacers.



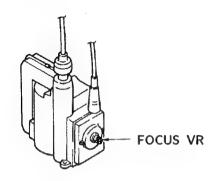
#### (3) Screen-corner Convergence





#### **3-3. FOCUS**

Adjust FOCUS so that the whole screen is in best focus.

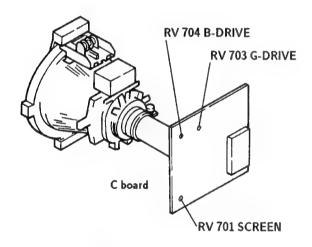


#### White Balance Adjustment

- 1. Input all-white signal from the pattern generator.
- 2. Adjust the BRIGHTNESS and COLOR controls to the standard level.
- 3. Adjust the following using RV 704 (B DRIVE) and RV 703 (G DRIVE)

In the following adjustments, the CONTRAST, COLOR and BRIGHTNESS controls are set to normal unless otherwise specified.

### 3-4. SCREEN (G 2) and WHITE BALANCE

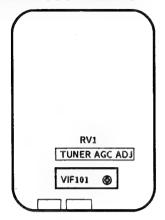


#### Screen (G 2) Setting

- 1. Input dot signal from the pattern generator.
- 2. Set the picture BRIGHTNESS control to minimum level.
- 3. Apply 170 V DC to the cathodes of R,G and B from an external power power source.
- 4. While watching the picture, adjust the G 2 volume (RV701) immediately before fly-back line disappears.

### SECTION 4 CIRCUIT ADJUSTMENTS

#### 4-1. A BOARD ADJUSTMENTS

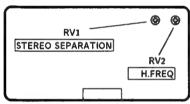


A BOARD (COMPONENT SIDE)

#### TUNER AGC ADJUSTMENT (VIF101, RV1)

- 1. Align with an appropriate signal between stations.
- 2. Adjust RV1 so that snow noise and cross modulation just disappear from the picture.

#### IFG5.5S SIF



IFG5.5S SIF -component side-

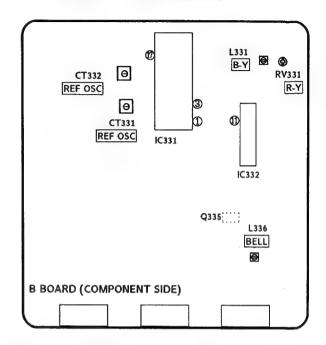
#### STEREO SEPALATION ADJUSTMENT (RV1)

- 1. Input stereo signals. (L-CH 400Hz, R-CH 1KHz)
- 2. Check the stereo indicator.
- 3. Connect on oscilloscope to pin® (CH1) of CN1 through band pass filter of 1KHz
- 4. Adjust RV1 so that 1KHz voltage goes down to the minmum.

#### H FREQ (RV2)

- Input a PAL COLOR BAR signal, then connect a jumper between pin<sup>®</sup> IC4 and GND.
- Connect a frequency counter to pin (4) IFG5.5S
   (HP) of CN1 through a probe of 10:1.
- 3. Adjust RV2 (H.FREQ)  $15.625 \pm 50$ Hz.
- 4. After adjustment, remove the jamper.

#### 4-2. B BOARD ADJUSTMENTS



### REFERENCE OSCILLATOR ADJUSTMENT (CT332 8.8MHz)

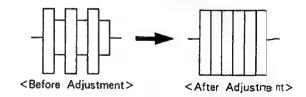
- 1. Input a PAL color bar signal.
- 2. Ground pin ® of the IC331.
- 3. Adjust CT332 to obtain synchronization.

### REFERENCE OSCILLATOR ADJUSTMENT (CT331 7.16MHz)

- 1. Input an NTSC3.58 color bar signal.
- 2. Ground pin ® of IC331.
- 3. Adjust the CT331 to obtain synchronization.
- 4. Remove the jumper grounding pin ① of IC331.

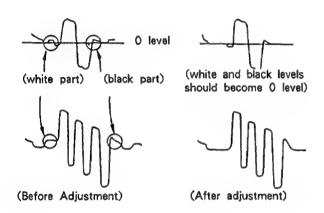
#### **BELL FILTER ADJUSTMENT (L336)**

- 1. Input a SECAM color bar signal.
- 2. Connect the oscilloscope to the emitter of Q3 35.
- 3. Adjust L336 so that the waveform is flat.

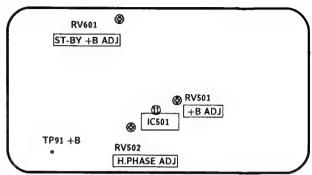


### DISCRIMINATION ADJUSTMENTS (RV331 and L331)

- 1. Input a SECAM color bar signal.
- 2. Connect the oscilloscope to pin ① of IC331.
- Adjust RV331 until the white and black sections
  of the waveform at pin ① are at the 0 level.
  Connect the oscilloscope to pin ③ of IC331.
- 4. Adjust L331 until the white and black sections of
- 5. the waveform at pin 3 are at the 0 level.



#### 4-3. D BOARD ADJUSTMENTS



D BOARD (COMPONENT SIDE)

#### +B ADJUSTMENT (RV501)

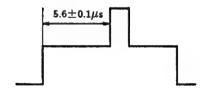
- 1. Connect the digital multimeter to TP91.
- 2. Adjust RV501 to obtain  $135 \pm 0.2$ V.

#### ST-BY +B ADJUSTMENT (RV601)

- 1. Put the system into  $\circlearrowleft$  standby mode (remote commander).
- 2. Connect the digital multimeter to TP91.
- 3. Adjust RV601 to obtain  $135 \pm 3V$ .
- 4. Take the system out of  $\circlearrowleft$  standby mode (remote commander).

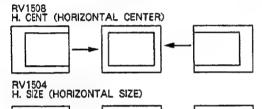
#### H.PHASE ADJUSTMENT (RV502)

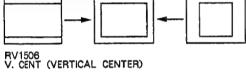
- 1. Input a PAL color bar signal.
- 2. Set the picture and brightness controls to their normal levels.
- 3. Set RV1508 (H.CENT) to its mechanical center.
- 4. Connect the oscilloscope to pin (I) (SCP) of IC 501.
- 5. Rotate RV502 to adjust to  $5.6 \pm 0.1 \mu s$ .

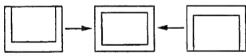


#### 4-4. J1 BOARD ADJUSTMENTS

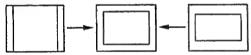
#### RV1506 RV1501 PIN COR RV1502 **RV1502 PIN PHASE** @RV1505 **RV1503 PIN AMP** RV1503 RV1504 H.SIZE @RV1501 **RV1505 CORNER COR** @RV1509 **RV1506 V.CENT** @RV1507 RV1507 V.SIZE **RV1508 H.CENT RV1509 V.ANGLE** J1 BOARD (COMPONENT SIDE)



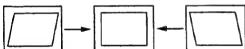




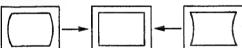




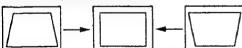
RV1509 V. ANGLE (VERTICAL ANGLE)



RV1503 PIN AMP (PINCUSHION AMPLIFIER)



RV1502 PIN PHASE (PINCUSHION PHASE)



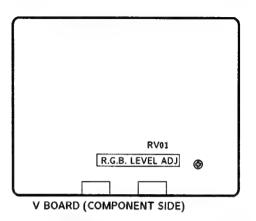
RV1501 PIN. COR (PINCUSHION CORRECT)



RV1505 CORNER. COR (CORNER CORRECT)



#### 4-5. V BOARD ADJUSTMENT



#### RGB LEVEL ADJUSTMENT (RV01)

- 1. Maximize the picture setting.
- 2. Adjust RV01 so that the RGB output is 0.75V.

#### 4-6. SECONDARY ADJUSTMENTS

#### SUB BRIGHTNESS ADJUSTMENT

- 1. Set the system to receive a test pattern.
- Press → ← on the remote commander to put the system into normal mode.
- 3. Switch off the power.
- While depressing the adjusting buttons + and
   simultaneusly, turn on the power. (SUB mode is obtained)
- 5. Minimize the O contrast setting.
- Adjust the \$\footnote{\top}\text{ brightness control so that the gray scale 0 IRE section is cut off completely and the 20 IRE section is barely glowing.
- 7. Depress the  $\diamondsuit$  (store) button of the remote commander.

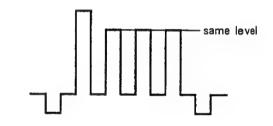
(SUB mode is released)

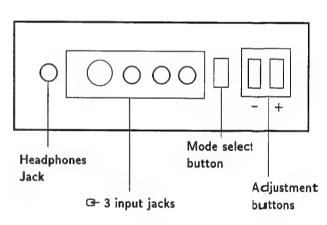
If there is no test color pattern

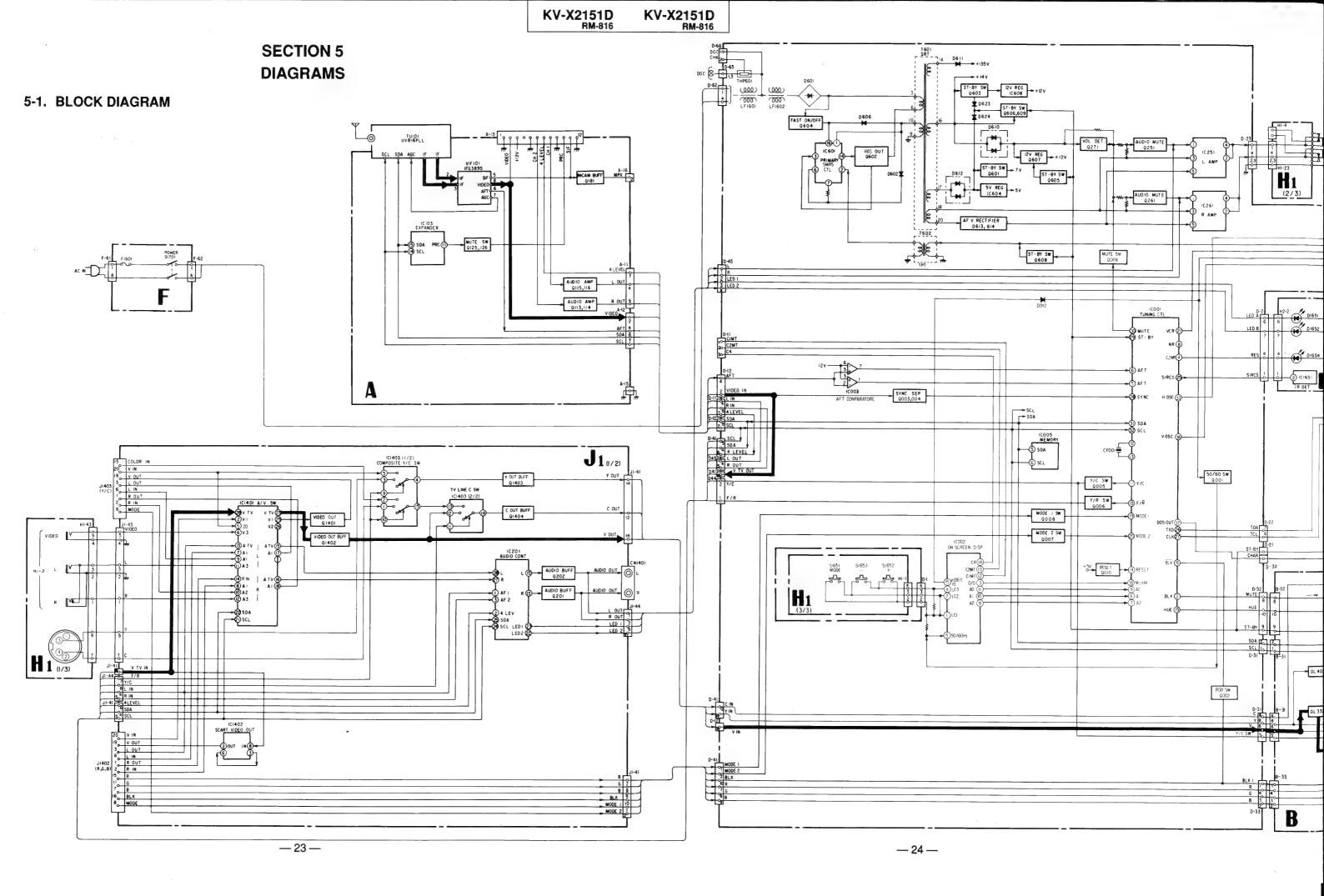
- 1. Set the system to receive a color pattern.
- Press → ← on the remote commander to put the system into normal mode.
   Set the ② color to its normal state.
- 3-5. Steps are the same as above.
- 6. Since 20 IRE is nearly blue, adjust the Dirightness control so that the blue barely glows.
- 7. Same as step 7 above.
- Press → ← on the remote commander to put the system into normal mode.

#### SUB COLOR ADJUSTMENT

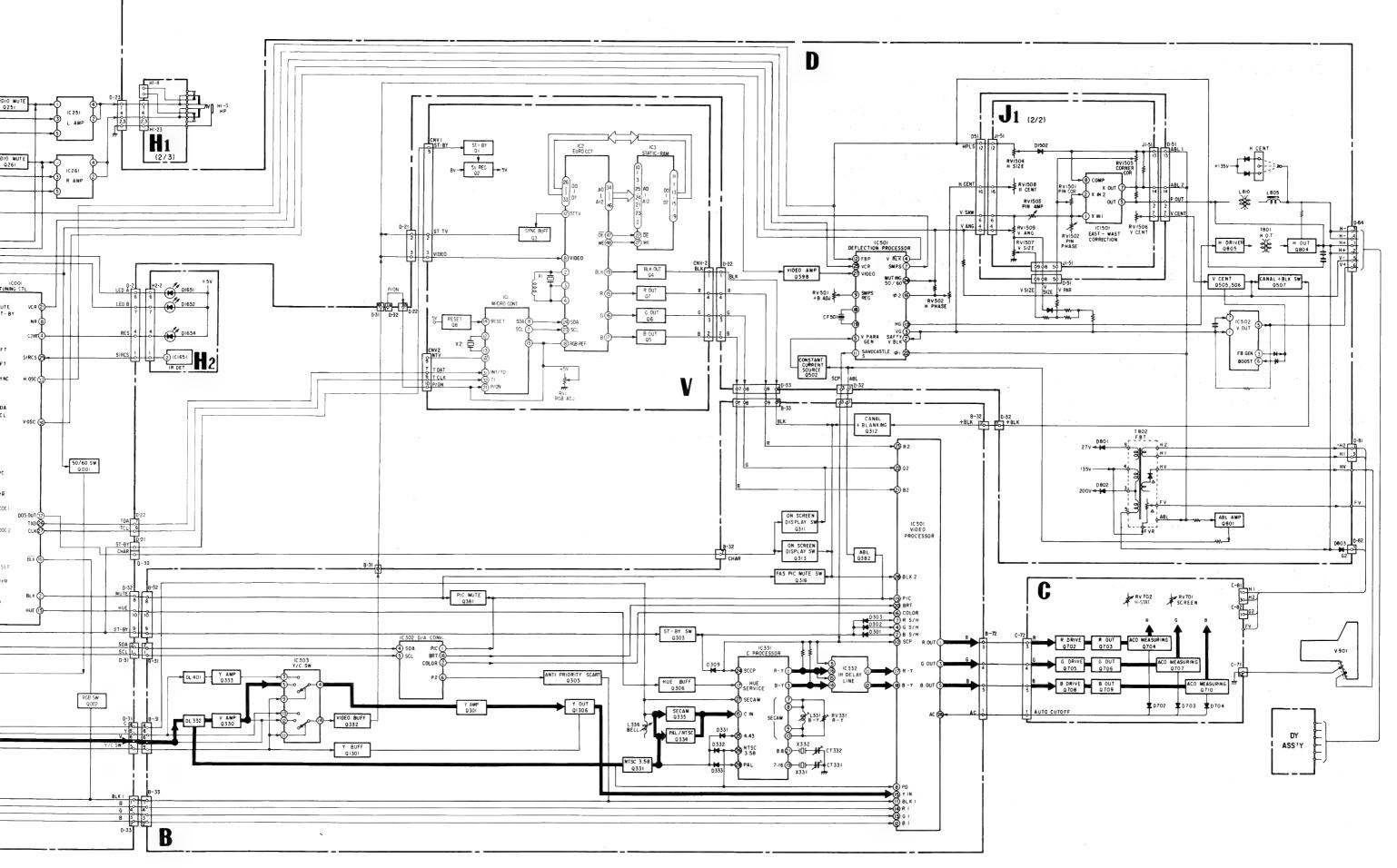
- 1. Set the system to receive color bars.
- Press → ← on the remote commander to put the system into normal mode.
- 3. Cut off the power.
- While depressing the adjustment buttons + and
   simultaneusly, turn on the power. (SUB mode is obtained).
- 5. Adjust the color control so that the B out waveform (pin ⑤ of C board connector CNC72) is as shown in the figure below.
- 6. Depress the  $\diamondsuit$  (store) button of the remote commander. (SUB mode is released)



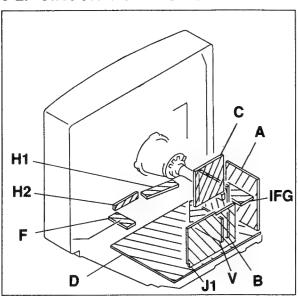




KV-X2151D KV-X2151D RM-816



#### 5-2. CIRCUIT BOARDS LOCATION



#### 5-3. PRINTED WIRING BOARDS AND **SCHEMATIC DIAGRAMS**

#### - Conductor Side -

#### Note:

- All capacitors are in µF unless otherwise noted. pF: μμF 50WV or less are not indicated except for electrolytics and tantalums.
- · All electrolytics are in 50V unless otherwise specified.
- · All resistors are in ohms.

 $k\Omega = 1000\Omega$ ,  $M\Omega = 1000K\Omega$ 

· Indication of resistance, which does not have one for rating electrical power, is as follows.

Pitch: 5 mm Rating electrical power 1/4W

- METAL FILM (:RN) resistors in 1%, 1/6W unless otherwise secified.
- : nonflammable resistor.
- ∧: internal component.
- : panel designation, or adjustment for repair.
- · All variable and adjustable resistors have characteristic curve B, unless otherwise noted.
- = : earth-ground.
- # : earth-chassis.
- · All voltages are in V.
- · Voltage are dc with respect to ground unless otherwise
- Readings are taken with a 10  $M\Omega$  digital multimeter.
- Readings are taken with a color-bar signal input.
- · Voltage variations may be noted due to normal production tolerance.
- \_\_\_\_: B+ bus.
- signal path. (RF)
- · Circuled numbers are waveform references.

#### Reference information

METAL FILM RESISTOR : RN

: RC SOLID

: FPRD NONFLAMMABLE CARBON : FUSE NONFLAMMABLE FUSIBLE NONFLAMMABLE WIREWOUND NONFLAMMABLE METALOXIDE : RS NONFLAMMABLE CEMENT : RB : ※ ADJUSTMENT RESISTOR

COIL : LF-8L MICRO INDUCTOR

CAPACITOR: TA **TANTALUM** STYROL :PS

: PP POLYPROPYLENE

:PT **MYLAR** 

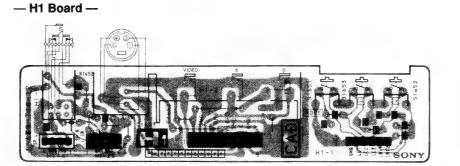
METALIZED POLYESTER : MPS METALIZED POLYPROPYLENE : MPP

**BIPOLAR** : ALB

HIGH TEMPERATURE : ALT

HIGH RIPPLE : ALR

The components identified by shading and mark  $\Delta$ are critical for safety. Replace only with part number specified.

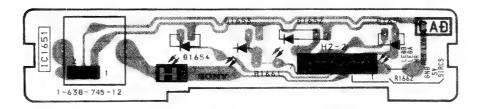


[SIRCS, RECEIVER, INDICATOR]

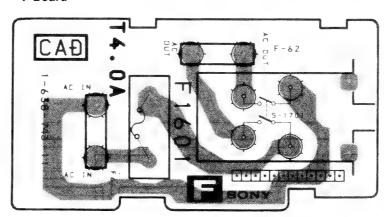
[CONTROL SW, AV INPUT,]

HEADPHONE

#### - H2 Board -

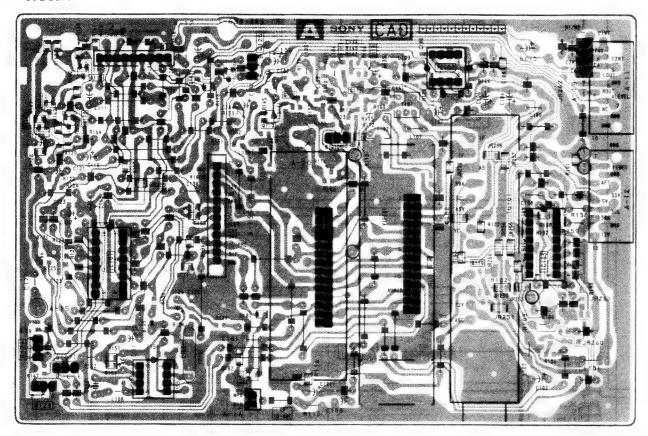


#### - F Board -



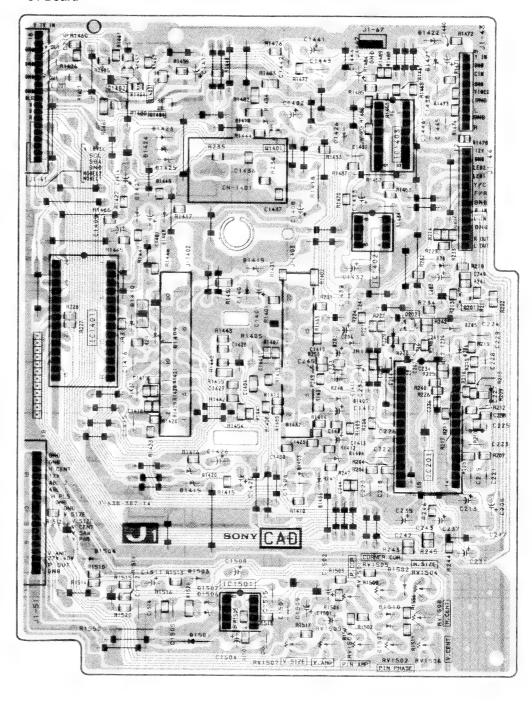
TUNER, SIF, VIF

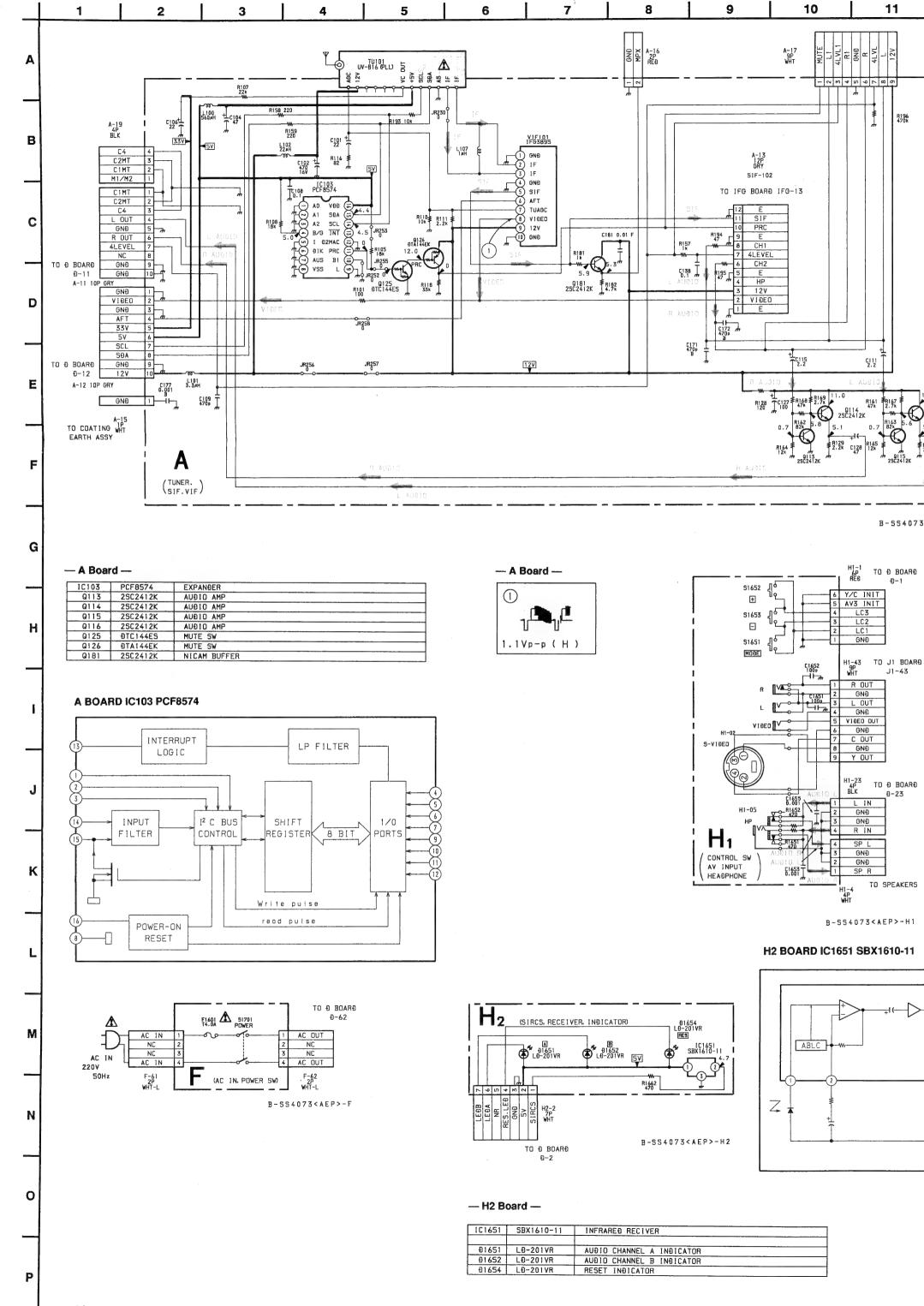
— A Board —



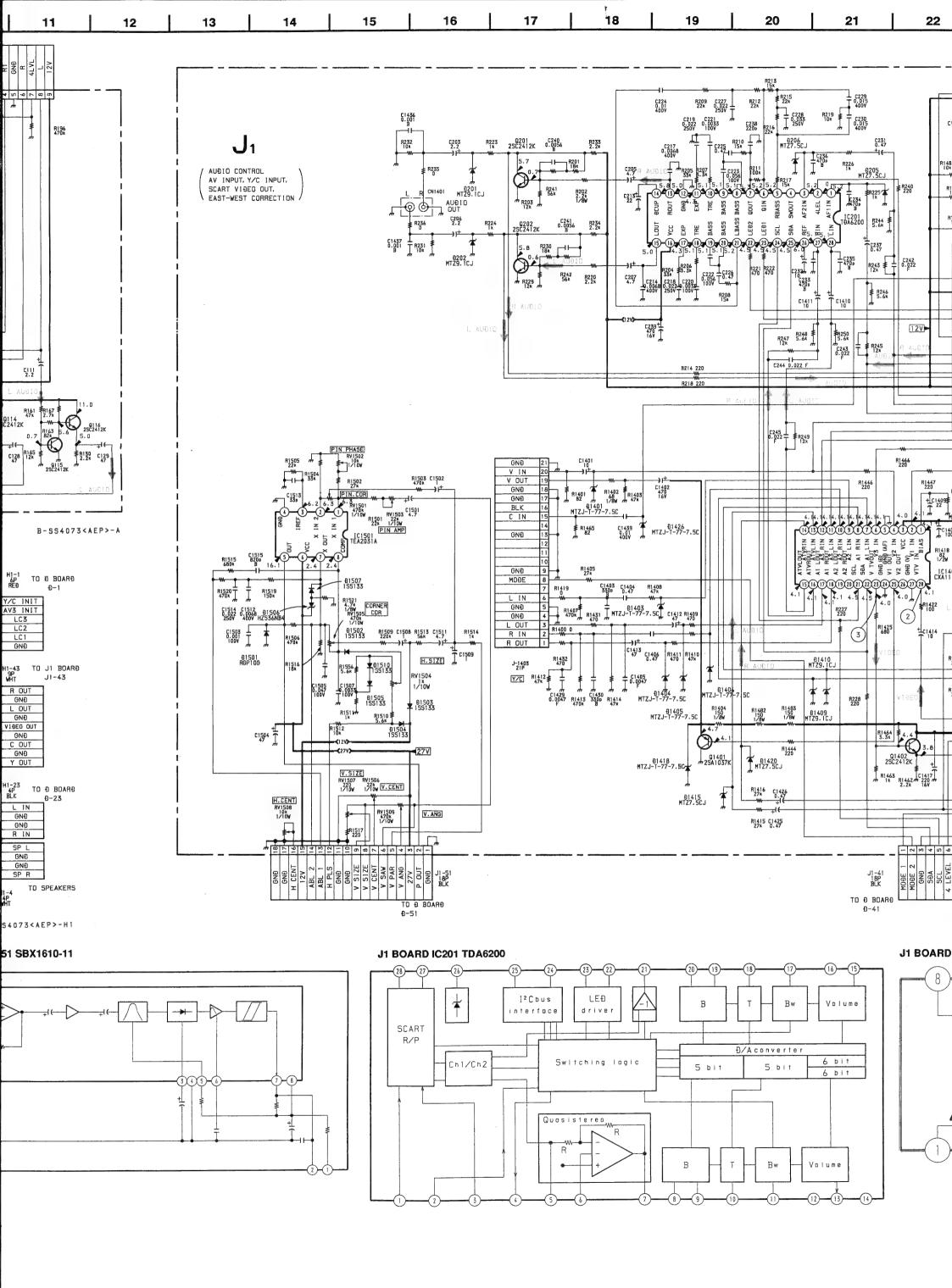
[AUDIO CONTROL, AV INPUT, Y/C INPUT, VIDEO OUT, EAST-WEST CONRECTION]

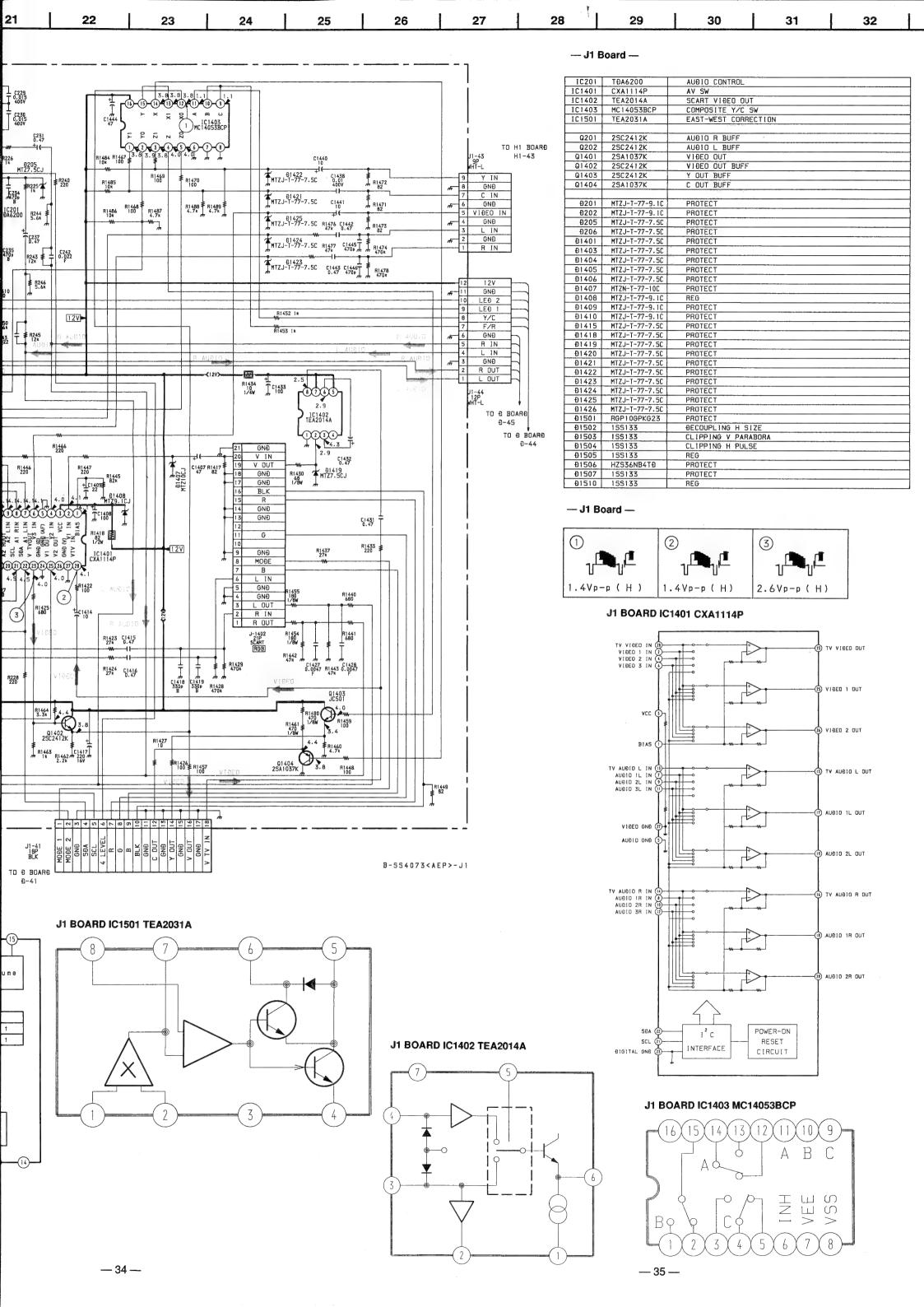
- J1 Board -



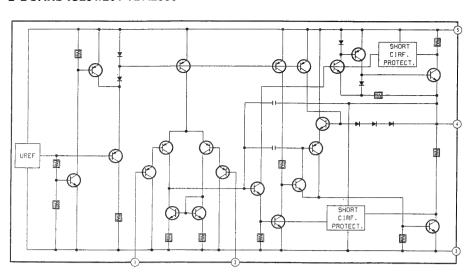


<del>--- 31 ---</del>

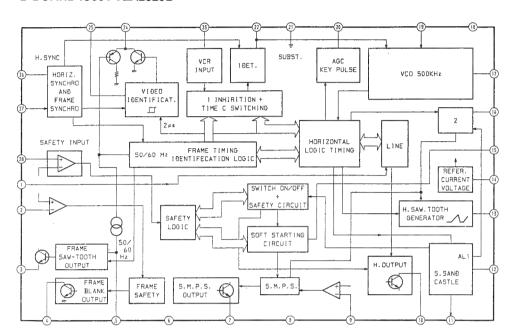




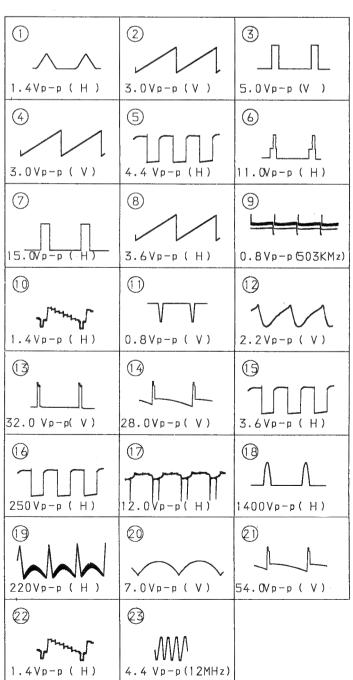
#### D BOARD IC251/261 TDA2050



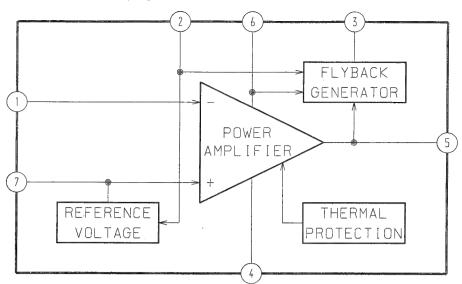
#### D BOARD IC501 TEA2028B



#### — D Board —



#### D BOARD IC502 TDA8170



Α

В

C

D

E

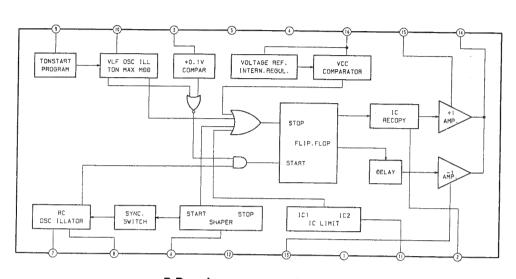
F

G

Н

М

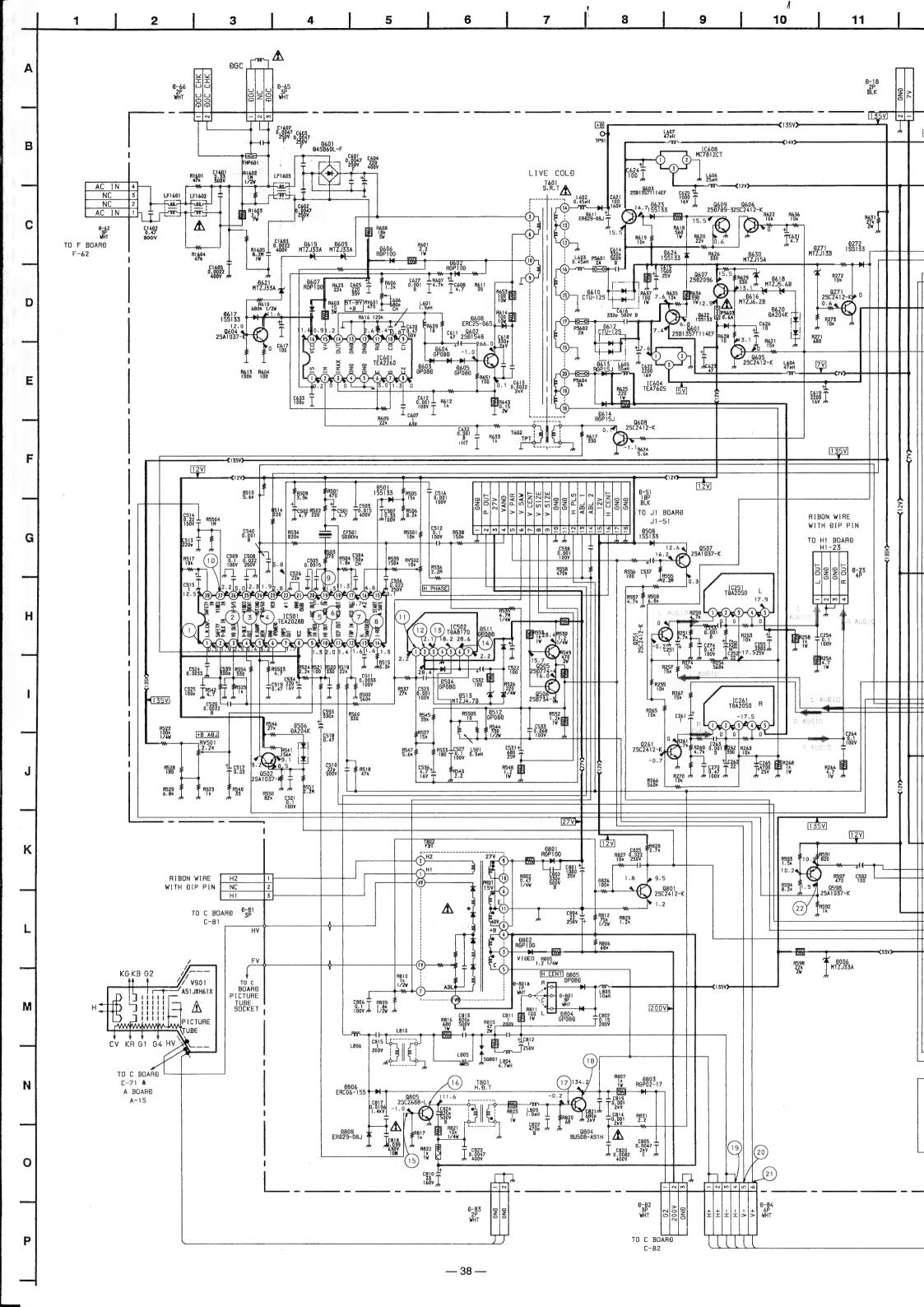
#### D BOARD IC601 TEA2260

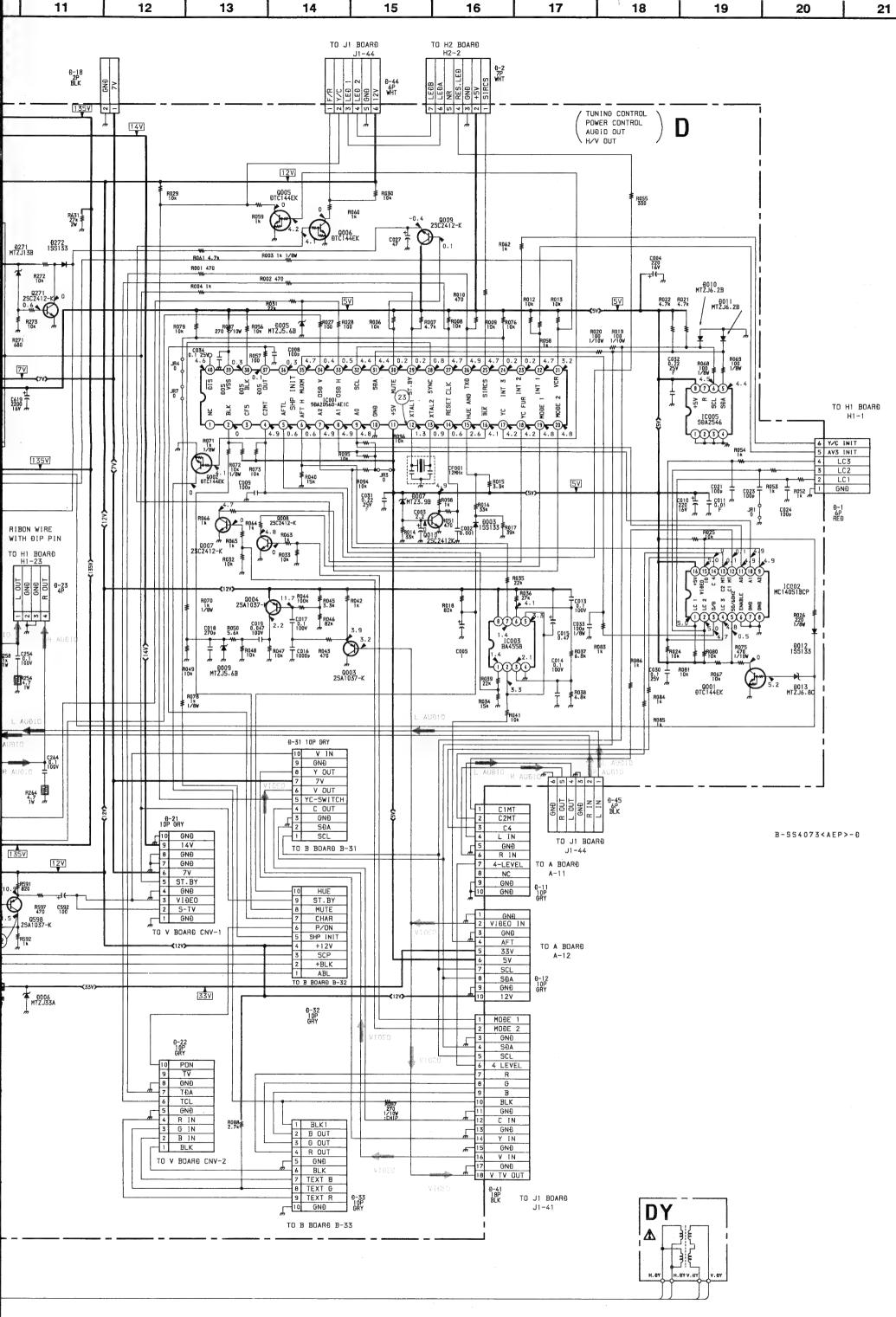


#### — D Board —

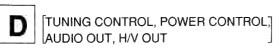
1C001	SDA20560-A012	TUNING CTL		
10002	MC14031BCP	DN SCREEN DISPLAY		
10003	BA4558	AFT COMPARATOR		
10005	SĐA2546	MY 'MEMORY		
1C251	T0A2050	AUÐIO DUT (L)		
10261	TĐA2050	AUDIO OUT (R)		
1C501	TEA202BB	DEFLECTION PROCESSOR		
1C502	TĐA8170	Y OUT		
10601	TEA2260	PRIMARY SMRS CTL		
IC604	TEA7605	+5V REG		
10608	MC7812CT	+12V REG		
0001	DTC144EK	50/60Hz SW		
Q002	DTC144EK	BLK SW		
0003	25A1037K	SYNC SEPARATOR		
0004	25A1037K	SYNC SEPARATOR		
0005	ĐTC144EK	Y/C SW		
9006	ĐTC144EK	FRONT/REAR SW		
0007	25C2412K	MOĐE 2 SWITCH		
8000	25C2412K	MOĐE 1 SWITCH		
0009	25C2412K	MUTE SW		
0010	25C2412K	RESET		
Q251	2SC2412K	AUBIO MUTE		
0261	25C2412K	AUDIO MUTE		
Q271	2SC2412K	VOLTAGE DETECT		
0502	25A1037K	CONSTANT CURRENT SOURCE		
Q505	2SÐ774	V CENT		
Q506	2SB734	V CENT		
Q507	25A1037K	CANAL +BLK		
Q598	2SA1037K	VIĐEO AMP		
Q601	2SB1357T114EF	STBY SW		
Q602	2SÐ1548	REG OUT		
0603	2SB1357T114EF	STBY SW		
Q604	2SA1037K	FAST ON/OFF		
Q605	25C2412K	STBY SW		
9606	25C2412K	STBY SW		
0607	2502096-EF	+12V REG		
8090	25C2412K	STBY SW		
Q609	2S0789-3	STBY SW		
Q801	2SC2412K	ABL AMP		
0804	2SÐ1941	H OUT		

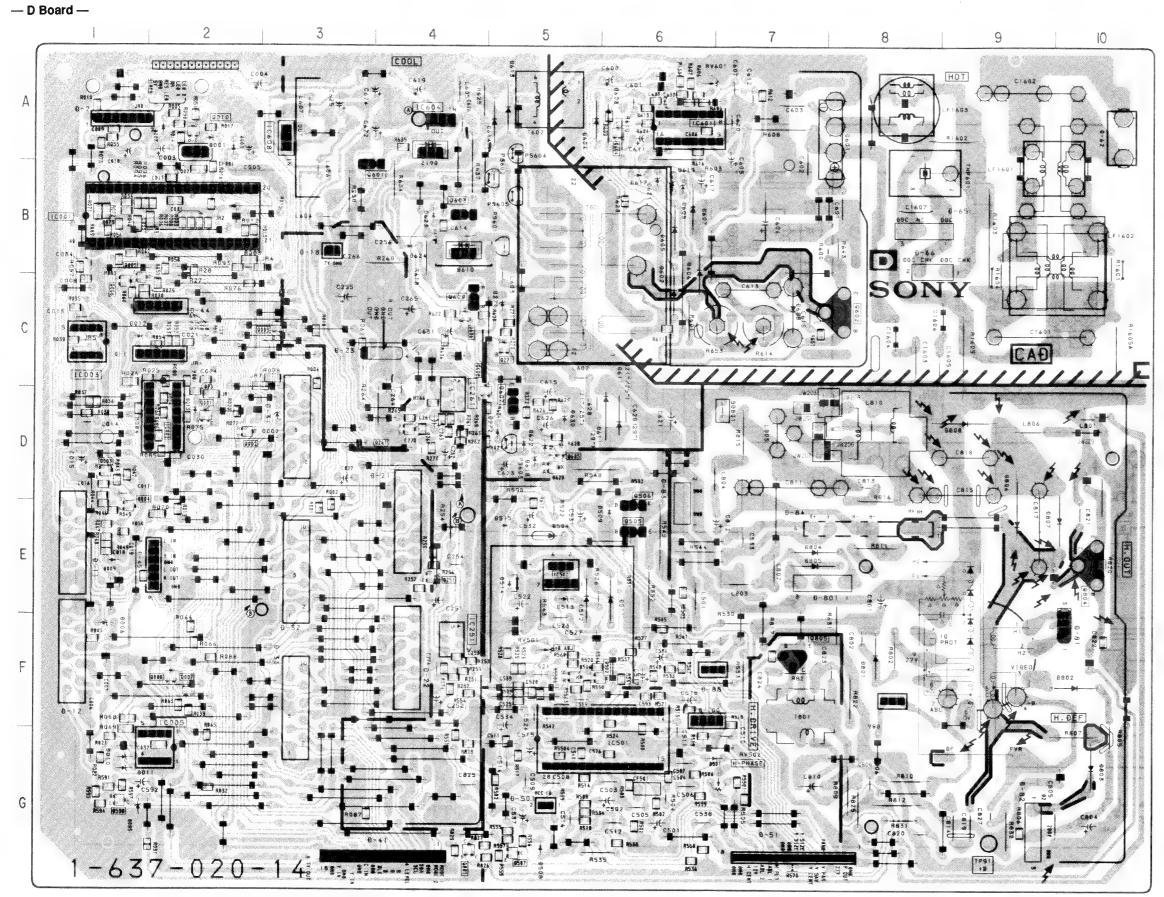
£003	155133	HUE CTL
Đ005	MTZJ5.6B	PROTECT
900G	MTZJ33A	VC VOLTAGE REGULATION
Đ007	MTZJ3.9B	PROTECT RESET
6009	MTZJ5.6B	CLIPPING SYNC LEVEL
£010	MTZJ6.2B	PROTECT
Đ011	MTZJ6.2B	PROTECT
Đ012	155133	PROTECT
Đ013	MTZJ6.8C	PROTECT
Đ271	MTZJ13B	VOLTAGE DETECT
Đ272	155133	DECOUPING MUTE AUDIO
Ð501	155133	SOFT START
Ð504	GP080PKG23	V PULSE OUT
Ð506	ĐA204K	CURRENT REG
Ð508	155133	CANAL +BLK LEVEL
Ð511	GP080PKG23	PROTECT
Ð512	GP080PKG23	PROTECT
Ð513	MTZJ4.7B	PROTECT
Ð601	Đ43B60L-F	AC RECT
Ð602	RGP10GPK923	REF RECT
£603	GP080PKG23	SMPS DRIVE 1
Ð604	GP08DPKG23	SMPS DRIVE 2
£605	GP080PKG23	SMPS ORIVE 3
9606	RGP10GPKG23	+12V RECT
Ð607	RGP10GPKG23	REF RECT
£608	ERC25-06S	PLUSE CLIPPER
Đ609	MTZJ33A	FAST ON/OFF
Ð610	CTU-125	+14V RECT
Đ611	ERÐ29-08J	+135V RECT
Ð612	CTU-125	+7V RECT
	RGP15J-6040G23	AF V RECT-1
Đ614	RGP15J-6040G23	AF V RECT-2
Đ616	MTZJ6,2B	+12V REG
£617	155133	PROTECT
9618	MTZJ5.6B	+12V REF
Ð619	MTZJ33A	FAST ON/OFF-2
Ð620	ĐA204K	+12V REF
Ð621	MTZJ33A	FAST ON/OFF-3
Ð622	195133	PROTECT
£623	155133	DECOUPING STBY
Đ624	155133	DECOUPING DTBY
Ð630	MTZJ15A	+12V RECT
Đ801	RGP10GPKG23	+27V RECT
9802	RGP10GPKG23	+200V RECT
£1803	RGP02-17PKG23	G2 RECT
Đ804	GP080PKG23	H CENTER-1
£805	GP08DPKG23	H CENTER-2
£0806	ERC06-155	H ĐAMPER-1
9808	ERÐ28-085	PIN DAMPER





KV-X2151D RM-816 KV-X2151D RM-816





#### - D Board -

1	c	D012	C1
IC001	B-2	D013 D271	D-2 C-5
1C002	D-2	D272	D-5
10003	C-1	D501	G – 7
IC005	G-2	D504	E-5
IC251	F-4	D506	F-5
IC261	D-4	D508	G-5
IC501	G-6	D509	E-6
IC502	E5 A6	D511	E-6
IC601 IC604	A-4	D512 D513	E 5 E 5
IC608	A-3	D513	E-5
		D515	E5
		D601	A-8
		D602	C-6
TRAN	SISTOR	D603	A-6
Q001	D-2	D604 D605	A-5 B-6
0002	D-2	D605	B-6
0003	D-1	D607	B-6
Q004	E=1	D608	C-7
Q005	C-1	D609	B-6
0006	C-1	D610	B-4
0007	F-2 F-2	D611	D-6
Q008 Q009	C-3	D612 D613	A-4 A-5
Q010	A-2	D613	A-5 A-5
Q251	E-4	D614	D-5
Q261	D – 4	D617	B-6
Q271	C-5	D618	D-5
Q502	F-6	D619	B-6
Q505	E-6	D620	D-5
Q506	D-6 G-5	D621	B6
Q507 Q598	G-5 G-1	D622	D-5
Q601	B-3	D623 D624	B-4 B-4
Q602	C-8	D630	D-5
Q603	B-4	D801	F-8
Q604	A-6	D802	F-10
Q605	D-5	D803	G-10
Q606	C-4	D804	E-7
Q607	D-5	D805	E7
Q608 Q609	D-4 C-4	D806	E 9 E 10
Q801	G-4	D807 D808	D9
Q804	E-10		
Q805	F-7	VARI	ABLE
		RESI	STOR
			F-5
D1/	)DE	RV501 RV502	F-5 G-7
ווט	ODE	RV601	A-6
D001	A-2		
D002	D-3		
D003	A-2		
D005	G-1	Т	P
D006	F-1	TP91	G-9
D007	A – 2 E – 1	וראו	0-9
D010	G – 1		
D011	G-1		
	- · ·	I	



D012 C-- 1 D013 D-2 D271 C-5 D272 D501 D-5 G-7 D504 E-5 D506 F-5 D508 G-5 D509 E-6D511 E-6E-5 D513 E-5 D514 E-5 D515 E -- 5 D601 A-8 D602 C-6D603 A-6 D604 A-5 D605 B-6 D606 B-6B-6D608 C-7 D609 B-6D610 B-4D611 D-6 D612 A-4D613 A--5 D614 A-5D616 D-5D617 B-6D618 D-5D619 B-6 D620 D621 D-5 B--6 D622 D-5 D623 B - 4 D624 B-4 D630 D-5 D801 F-8 D802 F-10 D803 G-10 D804 E-7 D805 E -- 7 D806 E - 9D807 E-10 B08D D--9

### VARIABLE RESISTOR

RV501 F-5 RV502 G-7 RV601 A-6

TP G-9



#### NOTE:

The circuit indicated as left contains high voltage of over 600 Vp-p. Care must be paid to prevent an electric shock in inspection or repairing.

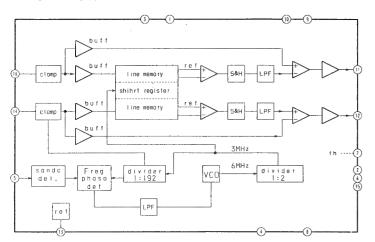
KV-X2151D RM-816

KV-X2151D

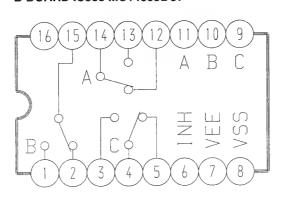
RM-816

**—** 43 **—** 

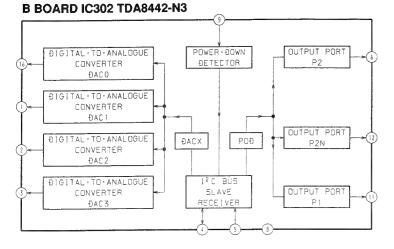
#### B BOARD IC332 TDA4660V2

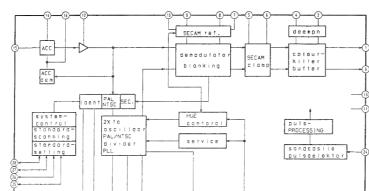


#### B BOARD IC303 MC14053BCP

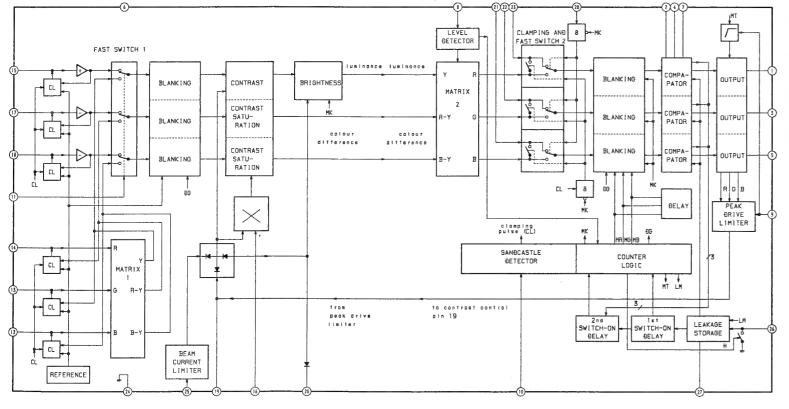


#### B BOARD IC331 TDA4650





#### B BOARD IC301 TDA4580-V7



#### - B Board -

B Board		
<sup>(1)</sup> խ,խ,լ		2
PAL. SECAM	NTSC 3.58/4.43	PAL. SECAM
4.8Vp-p (H)	4.8 Vp-p(H)	4.8 Vp-p (H)
2	3	3
7 <sup>1</sup>	ա <u>Մ</u> ԽաՄխաՄխ	म्युग् म्युग
NTSC 3.58/4.43 4.8Vp-p (H)	PAL, SECAM 4.8Vp-p (H)	NTSC 3.58/4.43 4.8Vp-p (H )
4	(5)	(5)
	Drawy L	2 June
1 Vp-p (H)	PAL 0.4Vp-p ( H )	SECAM 0.36 Vp-p(H)
(5)	6	6
1,200	-7 1-7 1-7 1-	4
NTSC 3.58/4.43 0.46 Vp-p (H)	PAL, SECAM 0.9Vp-p (H)	NTSC 3.58/4.43 0.7 Vp-p ( H )
7		8
<del></del>		MMM
PAL, SECAM 1.1Vp-p (H)	NTSC 3.58/4.43 1 Vp-p ( H)	PAL 0.5Vp-p(H)
8	8, , , , , ,	9
-1 L-1 L-1 L		
SECAM 1.1 Vp-p (H)	NTSC 3.58/4.43 0.4Vp-p ( H)	PAL 0.6Vp-p (H)
9	9	10
<u>- ՄՄ- ՄՄ- ՄՄ</u>		
SECAM 1.3Vp-p (H)	NTSC 3.58/4.43	SECAM 1.4 Vp-p (H)
1	(12)	(12)
SECAM 0.2Vp-p(H)	PAL	SECAM
(12)	0.2Vp-p(H)	0.12Vp-p (H)
	1-0111-01	
NTSC 3.58/4.43 0.05Vp-p (H)	PAL 0.4Vp-p ( H)	SECAM 0.1 Vp-p(H)
13	13	13
18 to the last of	1	San Parking
NTSC 3.58/4.43 0.4 Vp-p (H)	PAL 1 Vp-p ( H)	SECAM I Vp-p ( H )
13	13	(3)
	المياد	Span Parking
NTSC 3.58/4.43	PAL I Vp-p (H)	SECAM 0.9Vp-p(H)
13	19	13
-10-20-1	John John	
NTSC 3.58/4.43 1 Vp-p (H)	PAL, SECAM O.4Vp-p ( H)	NTSC 3.58/4.43 0.54Vp-p (H)

#### - B Board -

— <b>B B</b>	oaru —	
IC301	TĐA4580-V7	VIĐEO PROCESSOR
IC302	TĐA8442-N3	Đ/A CONVERTER IC BUS
10303	MC14053BCP	Y/C COMP SW
IC331	TĐA4650-V4	COLOR PROCESSOR
10332	TĐA4660V2	1H-DELAY
Q301	2SC2412K	Y BUFFER
Q303	25C2412K	STBY SW
0305	ĐTA144EK	ANTI PRIORITY SCART
Q306	JC501TP	VIĐEO BUFF
Q311	2SC2412K	ON SCREEN DISPLAY SW
Q312	25C2412K	CANAL +BLK
Q313	25C2412K	ON SCREEN DISPLAY
0316	2SC2412K	FAS PICTURE MUTE SW
Q330	2SA1037K	VIĐEO AMP
Q331	ĐTC124EK	NTSC SW
Q332	25A1037K	VIĐED BUFF
Q333	2SA1037K	Y AMP
Q334	25C2412K	PAL/NTSC SW
Q335	25C2412K	SECAM SW
Q381	ĐTC124EK	MUTE
Q382	25C2412K	ABL
Q1301	ĐTC124EK	Y BUFF
Q1306	25C2412K	Y DUT
Đ301	155133	ACO AT STBY
Ð302	155133	ACO AT STBY
Đ303	155133	ACO AT STBY
Ð304	155133	DECOUPLING BLK
Đ305	155133	PROTECT
Ð307	MTZ11CJ	PROTECT
£309	155133	PROTECT
Đ310	MTZ11CJ	PROTECT
£311	MTZ11CJ	PROTECT
Ð312	MTZ11CJ	PROTECT
Đ313	155133	PROTECT
Đ314	155133	PROTECT
Ð315	155133	PROTECT
Ð316	155133	PROTECT
Ð317	1:55133	PROTECT
£318	155133	PROTECT
Đ319	155133	PROTECT
Ð320	155133	PROTECT
Đ331	155133	SECAM SW
Đ332	155133	SECAM SW
£333	155133	SECAM SW
Đ350	MTZ5.6CJ	PROTECT

Α

C

D

F

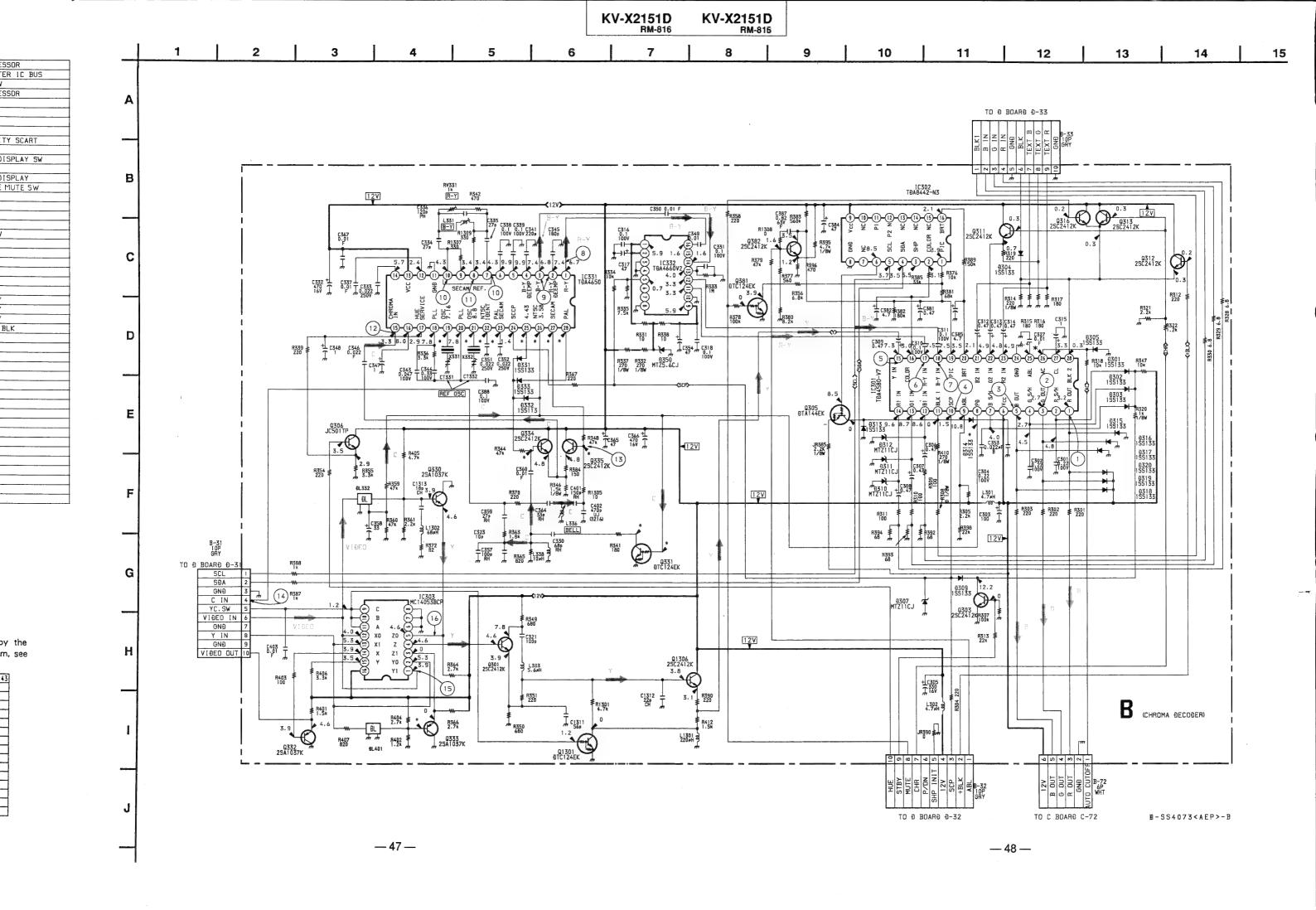
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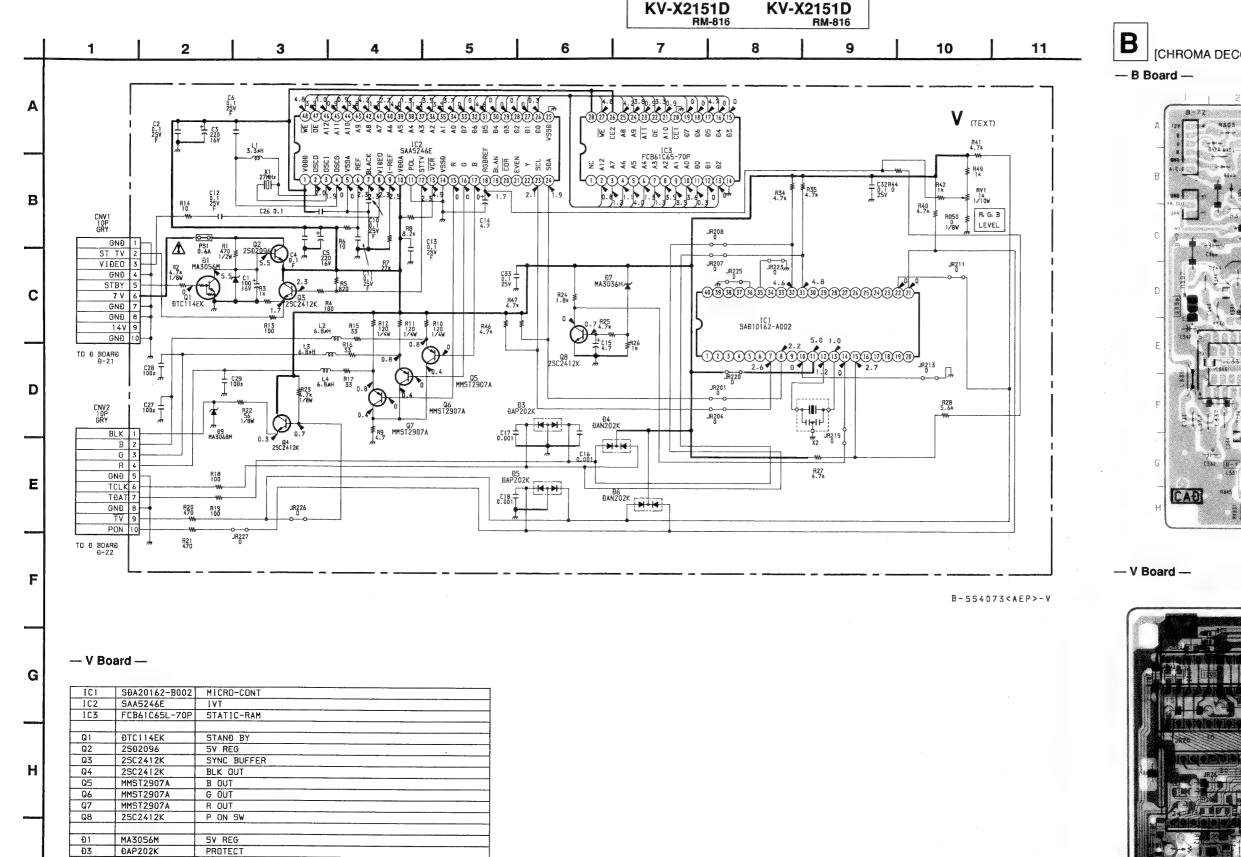
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#### — B Board —

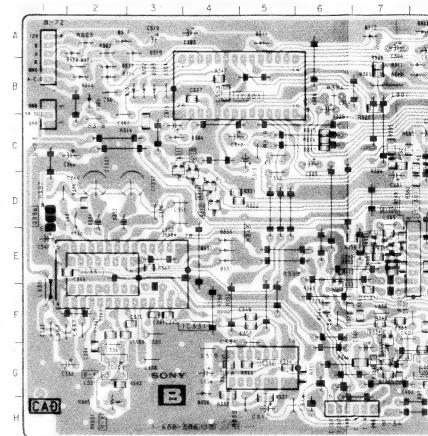
As to the voltage volue shown by the mark  $\divideontimes$  on the Schematic Diagram, see the another list.

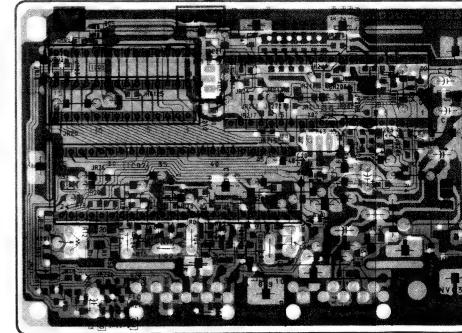
/	PAL	SECAM	NTSC3.58	NTSC4.43
IC301 (1)	0.1	0.1	5.8	0.1
	6.7	6.8	5.1	5.1
10331 🕦	3.1	3.6	3.1	2.8
(1)	3.0	3.5	2.9	2.7
$\overline{u}$	5.6	5.6	7.1	7.2
(3)	7.5	7.0	5.6	5.6
(3)	0.1	0.1	0.1	5.8
1	0.1	0.1	5.8	0.1
$\overline{v}$	0.1	5.8	0.1	0.1
	5.9	0.1	0.1	0.1
0331 (B)	0.1	0.1	5.8	0.1
(C)	1.5	1.9	0	0.8
Q333 (B)	3.4	4.4	4.4	4.4
Q334 (B)	4.9	0.1	4.8	4.8
Q335 (B)	0.1	4.8	0.1	0.1





[CHROMA DECODER]





PROTECT

PROTECT

PROTECT

PROTECT

PROTECT

Đ4

Đ5

ĐAN202K

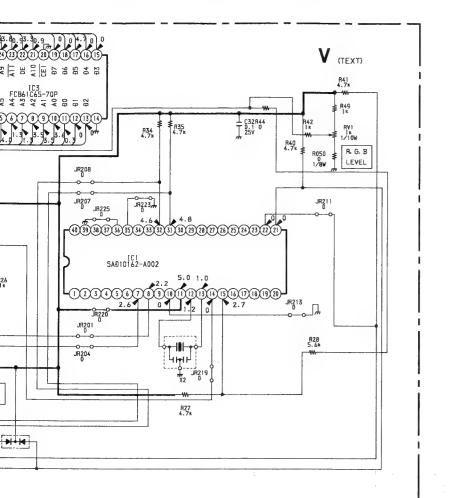
ĐAP202K

ĐAN202K

MA3036H

M83068M

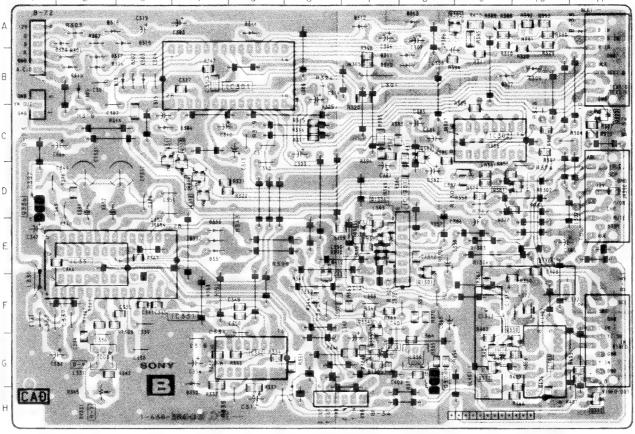
KV-X2151D



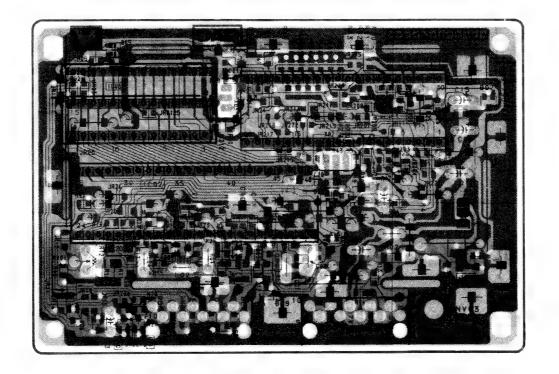
B-554073<AEP>-V



- B Board -







- Conductor side pattern
- : Component side pattern

- B Board -

IC

IC301 B-5

IC302 C-9 IC303 G-10

IC332 G-5

TRANSISTOR

E-7

C - 11

A - 9

G – 9

C-3

D-4

C - 4

D – 4

F-6

H – 11

G - 9

F - 7

G-8

Q382 C-8

Q1301 E-8 Q1306 E-7

DIODE D301 B-3

D302 B-3 D303 B-3

D - 10

G - 10

E-2

IC331

Q301

Q303

Q305

Q306

Q311

Q312

Q313 Q316

Q330

Q331

Q332

Q333

Q334

Q335

Q381

D304

D305

D307

D309 D310

D311

D312

D313

D315

D316

D317

D318

D319

D320

D331

D332

D333

D314

C - 3

B-2

B -- 9

B - 10

B - 8

B-8

A - 7

A - 8

A-5

B-2

B-2

A-2

A - 3

A-2

E – 4

E – 4

D350 G-4

TRIMMER

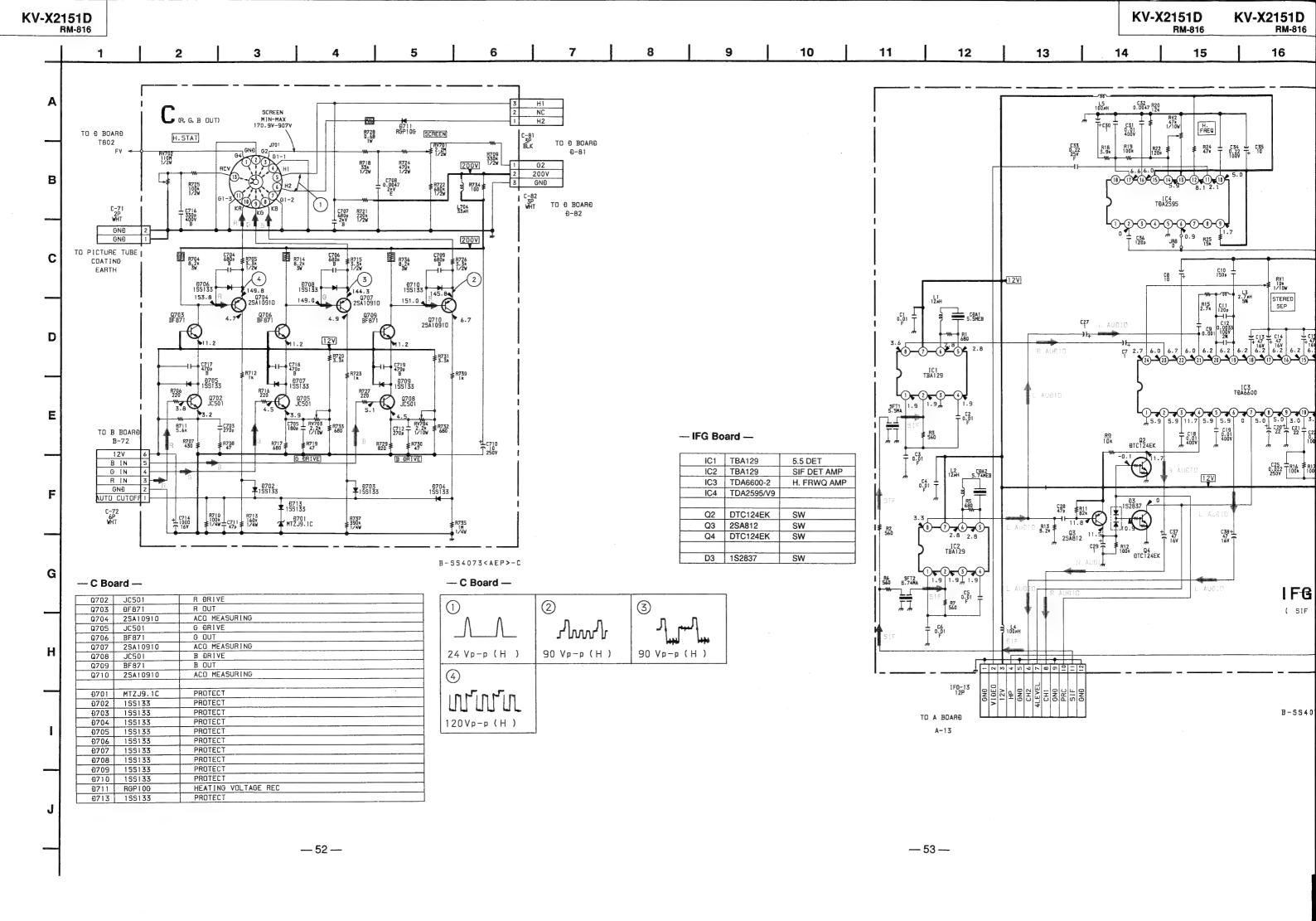
CT331 D-2

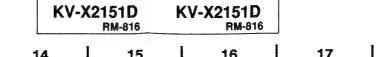
CT332 D-3

VARIABLE

RESISTOR

RV331 H-2

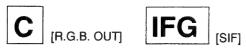




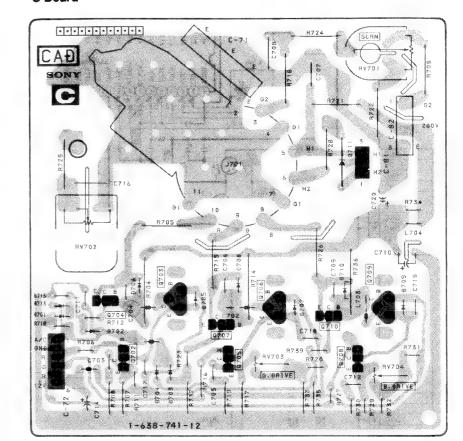
H. FREQ

R24 T C34 T C35

15 16







3

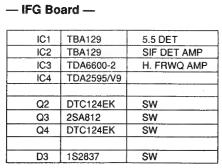
90 Vp-p (H)

Joon J.

90 Vp-p (H)

TO D BOARD

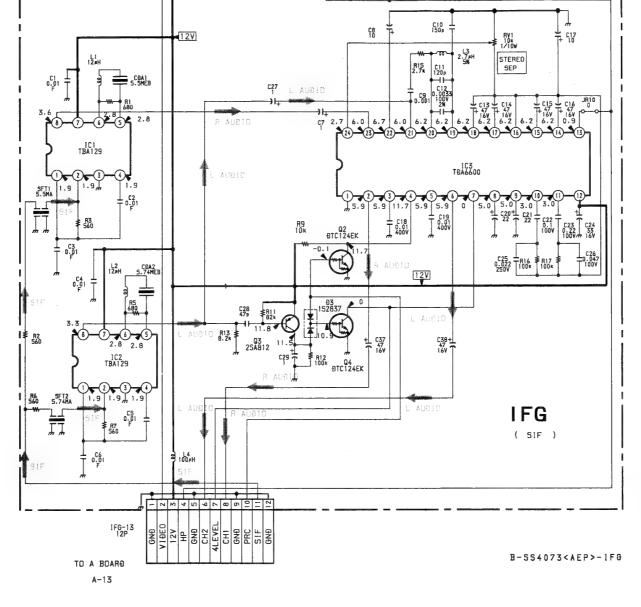
IC1	TBA129	5.5 DET
IC2	TBA129	SIF DET AMP
IC3	TDA6600-2	H. FRWQ AMP
IC4	TDA2595/V9	
Q2	DTC124EK	SW
Q3	2SA812	SW
Q4	DTC124EK	SW
D3	1S2837	SW



11

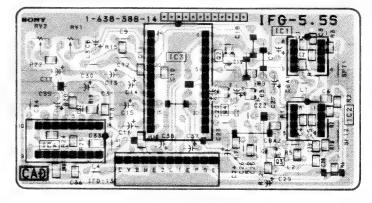
12

13

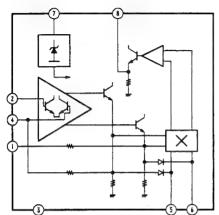


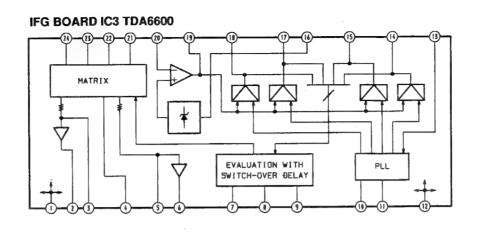
0.0047 R20

— IFG Board —

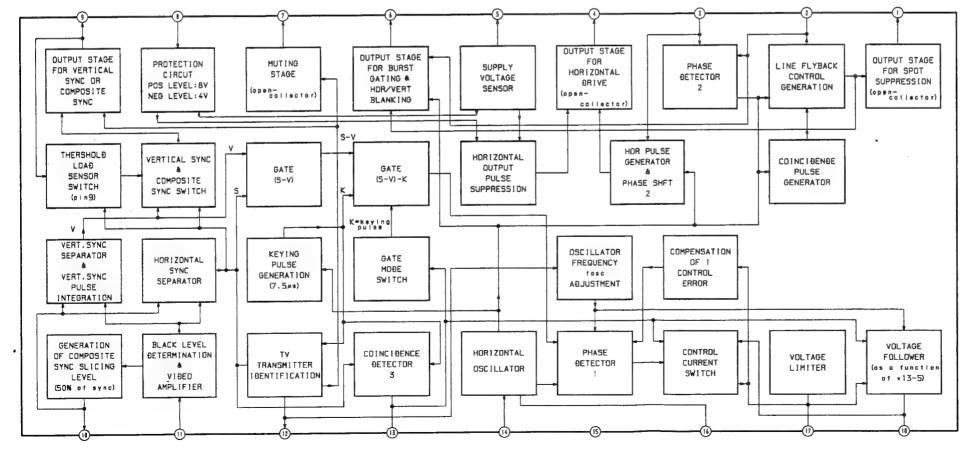


IFG BOARD IC1/IC2 TBA129





#### IFG BOARD IC4 TDA2595



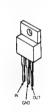
### 5-4. SEMICONDUCTORS

BU14053B
HD14053BFP
MC14051BCP
MC14053BCP
PCF8574
TDA2545A-V4
TDA4660V2
TDA8442-N3
TEA2260
μ <b>PD4053BC</b>
مُممممممُ
}
<u>مُمممممممُ</u>
(Top view)

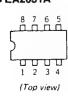




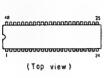
LM7812CT TDA8341/N6 **TEA7605** 



RC4558P SDA2546 **TBA129 TEA2014A** TEA2031A



## SAA5246P/E



SBX1610-11



SDA20162-B002 SDA20560-A012



(Top view)







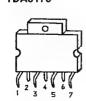


(Top view)





TDA8170



BF871



DTA144EK DTC114EK DTC124EK DTC144EK MMST2907A 2SA1162-G 2SA1623-L5L6 2SB1295-UL6 2SC1623-L5L6 2SA812



DTC144ES

2SA1037K

2SC2412K



JC501TP-Q 2SC2785-HFE



2SA1091-0 2SA10910



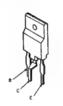
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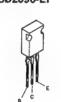
2SB734-34 2SD774-34



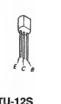
2SD1548-LB 2SD1941-06



2SD2096-EF



2SD789-34



**CTU-12S** 



DAN202K 1S2836



DAP202K





DA204K **1SS226** 

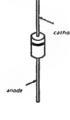








EGP20G



ERC06-15S ERC25-06S RGP10GPKG23 RU-3AM



ERD28-08S GP08DPKG23 RGP02-17 RGP15J



ERD29-08J

HZS10NB3 HZS11NB3



HZS5.6NB2

HZS5.6NB3

HZS6.2NB2

HZS6.8NB3

HZS7.5NB3

HZS9.1NB3

MTZJ-11C

MTZJ-13B

MTZJ-15A

MTZJ-33A

MTZJ-36D

MTZJ-3.9B

MTZJ-4.7B

MTZJ-5.6B

MTZJ-5.6C

MTZJ-6.2B

MTZJ-6.8C

MTZJ-7.5C MTZJ-9.1C MTZJ-10C

RD11ESB3 RD13ESB2

RD15ESB1 RD5.6ESB2 RD6.2ESB2

RD6.2ESL3

RD6.8ESB2

RD7.5ESB2

RD9.1ESB3

UZ-4.7BSC

CATODO

**1SS119 1SS133** 





LD-201VR



MA152WK 1S2837





MA3036H MA3056M MA3068M RD3.6M-B2 RD5.6M-B2 RD6.8M-B2





U05G





# SECTION 6 EXPLODED VIEWS

#### NOTE:

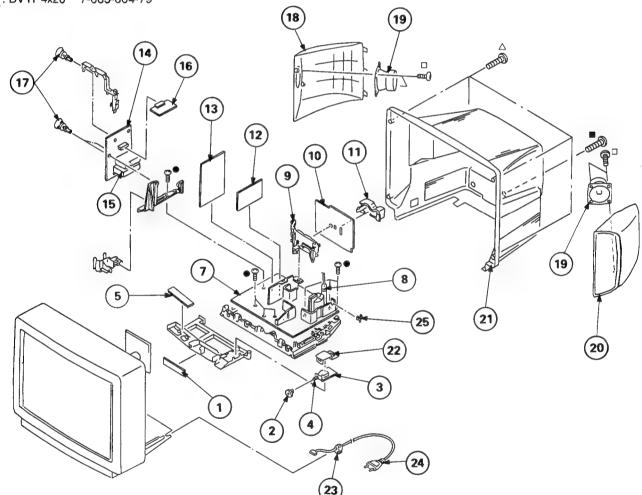
- Items with no part number and no description are not stocked because they are seldom required for routine service.
- The construction parts of an assembled part are indicated with a collation number in the remark column
- Items marked "\*" are not stocked since they are seldom required for routine service. Some delay should be anticipated when ordering these items

The components identified by shading and mark  $\Delta$  are critical for safety.

Replace only with part number specified.

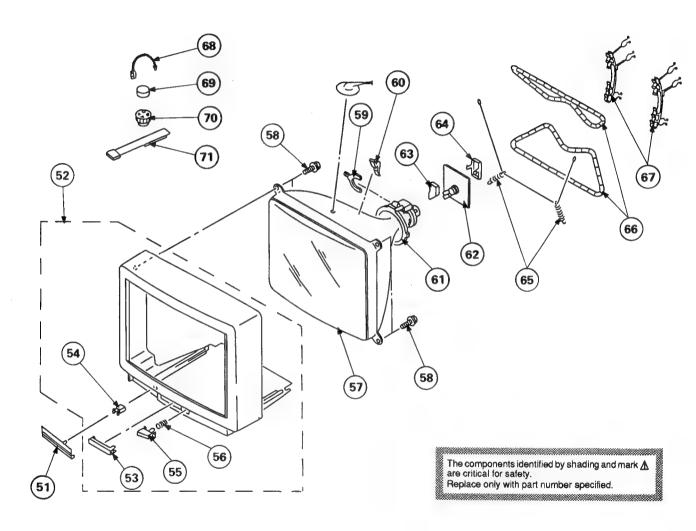
### 6-1. CHASSIS

SVTP3x12 7-685-648-79
BVTP4x16 7-685-663-79
BVTP3x20 7-685-651-79
↑: BVTP4x20 7-685-664-79



		$\overline{}$		
REF.NO. PART NO.	DESCRIPTION REMARK	REF.NO. PART NO.	DESCRIPTION	REMARK
5 *1-638-744-11 7 *A-1642-067-A 8 \( \hbar{A}\) . 1-439-416-51 9 *4-386-624-01 10 *A-1651-023-A 11 4-200-014-11	H2 BOARD COVER, SWITCH F BOARD SWITCH, PUSH (AC POWER) H1 BOARD D BOARD, COMPLETE TRANSFORMER ASSY, FLYBACK (UX-1650) BRACKET, J J1 BOARD, COMPLETE BRACKET, TERMINAL V BOARD, COMPLETE B BOARD, COMPLETE	14 *A-1632-054-A 15		

## 6-2. PICTURE TUBE



REF.NO. PART NO.	DESCRIPTION	REMARK	REF.NO. PART NO.	DESCRIPTION	REMARK
51	DOOR (PAINTED) CABINET ASSY (WITH BEZEL ASSY) WINDOW, ORNAMENTAL CATCHER, PUSH BUTTON, POWER SPRING PICTURE TUBE (A51JXH61X) SCREW (S), PT MAGNET, BMC SPACER, DY DEFLECTION YOKE (Y21PFA2)	53~56	63 *4-379-167-01 64 *4-379-160-01 65 4-200-433-11 66 \( \Lambda \text{.1-426-383-11} \) 67 *4-386-622-11 68 4-308-870-00 69 1-452-032-00 70 1-452-094-00	COVER (REAR LID), CV SPRING, EXTENSION COIL, DEMAGNETIZATION BAND, DGC CLIP, LEAD WIRE MAGNET, DISK; 10MM ø	5MM <b>ø</b> Ce

## **SECTION 7 ELECTRICAL PARTS LIST**

NOTE:

The components identified by shading and mark  $\Delta$  are critical for safety. Replace only with part number specified.

Items marked "\*" are not stocked since they are seldom required for routine service. Some delay should be anticipated when ordering these items.

When indicating parts by reference number, please include the board name.

CAPACITORS MF: μF, PF: μμF

COILS
• MMH: mH, UH: μH

All variable and adjustable resistors have characteristic curve B, unless otherwise noted.

#### RESISTORS

- All resistors are in ohms F: nonflammable

	DESCRIPTION	REMARK	REF.NO.	PART NO.	DESCRIPTION		REMARK
* A-1621-036-A	B BOARD, COMPLETE ***********************************		C351 C352 C353 C354	1-163-063-00 1-124-910-11	FILM 0.022MF CERAMIC CHIP 0.022MF ELECT 47MF	10% 10% 10% 20%	250V 250V 50V 50V
B31 *1-565-393-11 B32 *1-565-393-11 B33 *1-565-393-11 B72 *1-568-881-51	CONNECTOR, BOARD TO BOARD CONNECTOR, BOARD TO BOARD CONNECTOR, BOARD TO BOARD PIN, CONNECTOR 6P		C357 C358 C359 C360 C364 C365	1-163-377-11 1-124-917-11 1-163-103-00 1-101-004-00 1-163-105-00 1-124-910-11	CERAMIC CHIP 100PF  ELECT 33MF CERAMIC CHIP 27PF CERAMIC 0.01MF CERAMIC CHIP 33PF ELECT 47MF	5% 20% 5% 5% 20%	50 V 50 V 50 V 50 V 50 V 50 V
C301 1-137-031-11 C302 1-137-031-11 C303 11-124-122-11 C304 11-137-031-11 C305 1-124-119-00	PACITOR>  FILM 0.22MF 10% FILM 0.22MF 10% ELECT 100MF 20% FILM 0.22MF 10% ELECT 330MF 20%	100V 100V 50V 100V 16V	C366 C367 C381 C382 C384	1-126-103-11 1-101-004-00 1-124-902-00 1-124-927-11 1-124-910-11	CERANIC 0.01MF ELECT 0.47MF ELECT 4.7MF ELECT 47MF	20% 20% 20% 20%	16V 50V 50V 50V 50V
C306 1-124-902-00 C307 1-124-902-00 C308 1-124-902-00 C309 1-124-902-00 C310 1-137-098-11		50V 50V 50V 50V 100V	C401 C402	1-163-197-00	FILM 0.1MF CERAMIC 150PF CERAMIC CHIP 470PF	20% 10% 10% 5%	50V 63V 100V 50V 50V
C311 1-137-098-11 C312 1-124-902-00 C313 1-124-902-00 C314 1-124-902-00 C315 1-124-903-11	FILM 0.1MF 10% ELECT 0.47MF 20% ELECT 0.47MF 20% ELECT 0.47MF 20% ELECT 1MF 20%	100V 50V 50V 50V 50V	C1312	1-163-235-11 1-102-953-00	CERAMIC CHIP 56PF CERAMIC CHIP 22PF CERAMIC 18PF	5% 5% 5%	50V 50V 50V 50V
C316 1-137-098-11 C317 1-124-910-11 C318 1-137-098-11 C321 1-163-117-00 C323 1-102-947-00	ELECT 47MF 20%	100V 50V 100V 50V F 50V	CT331 CT332	1-141-181-11 1-141-181-11	CAP, TRIMMER		
C327 1-163-031-11 C330 1-163-113-00 C331 1-137-098-11 C332 1-126-103-11 C333 1-137-102-11	CERAMIC CHIP 68PF 5% FILM 0.1MF 10% ELECT 470MF 20%	50V 50V 100V 16V 250V	D301 D302 D303 D304 D305	8-719-911-19 8-719-911-19 8-719-911-19 8-719-911-19 8-719-911-19	DIODE 155119		
C334 1-163-237-11 C335 1-163-237-11 C336 1-102-816-00 C337 1-101-004-00 C338 1-137-098-11	CERAMIC CHIP 27PF 5% CERAMIC 120PF 5% CERAMIC 0.01MF FILM 0.1MF 10%	50V 50V 50V 50V 100V	D307	8-719-110-23 8-719-911-19 8-719-110-23 8-719-110-23 8-719-110-23	DIODE RD11ES-B3 DIODE 1SS119		
C339 1-137-098-11 C341 1-163-125-00 C343 1-137-094-11 C344 1-137-033-11 C345 1-163-123-00	CERAMIC CHIP 220PF 5% FILM 0.047MF 10% FILM 0.33MF 10% CERAMIC CHIP 180PF 5%	100V 50V 100V 100V 50V	D313 D314 D315	8-719-911-19 8-719-911-19 8-719-911-19 8-719-911-19 8-719-911-19	DIODE 1SS119 DIODE 1SS119 DIODE 1SS119 DIODE 1SS119 DIODE 1SS119 DIODE 1SS119		
C346 1-163-033-00 C347 1-124-903-11 C348 1-124-903-11 C349 1-163-031-11 C350 1-163-031-11	CERAMIC CHIP 0.022MF ELECT IMF 20% ELECT IMF 20% CERAMIC CHIP 0.01MF CERAMIC CHIP 0.01MF	50V 50V 50V 50V 50V		8-719-911-19 8-719-911-19 8-719-911-19 8-719-911-19	DIODE 1SS119 DIODE 1SS119 DIODE 1SS119 DIODE 1SS119		



REF.NO.	PART NO.	DESCRIPTION		REMAI	K REF.NO.	PART NO.	DESCRIPTION				REMARK
D332 D333 D350	8-719-911-19 8-719-911-19 8-719-109-89	DIODE 1SS119 DIODE 1SS119 DIODE RDS 6ES-	-R2		R313 R314	1-216-081-00 1-216-182-00			5% 5%	1/10W 1/8W	
DL332	<del. 1-236-062-11<="" td=""><td>DESCRIPTION  DIODE 1SS119 DIODE 1SS119 DIODE RD5.6ES-  AY LINE&gt;  MODULE, Y DELA DELAY LINE, Y  IC TDA4580-V7 IC TDA8442N3 IC UPD4053BC IC TDA4650/V4 IC TDA4660V2  L&gt;  INDUCTOR INDUCTO</td><td>NY LINE</td><td></td><td>R315 R316 R317 R318 R319</td><td>1-216-031-00 1-216-031-00 1-216-031-00 1-249-429-11 1-249-409-11</td><td>METAL GLAZE METAL GLAZE CARBON</td><td>180 180 180 10K 220</td><td>5% 5% 5% 5%</td><td>1/10W 1/10W 1/10W 1/4W 1/4W</td><td></td></del.>	DESCRIPTION  DIODE 1SS119 DIODE 1SS119 DIODE RD5.6ES-  AY LINE>  MODULE, Y DELA DELAY LINE, Y  IC TDA4580-V7 IC TDA8442N3 IC UPD4053BC IC TDA4650/V4 IC TDA4660V2  L>  INDUCTOR INDUCTO	NY LINE		R315 R316 R317 R318 R319	1-216-031-00 1-216-031-00 1-216-031-00 1-249-429-11 1-249-409-11	METAL GLAZE METAL GLAZE CARBON	180 180 180 10K 220	5% 5% 5% 5%	1/10W 1/10W 1/10W 1/4W 1/4W	
DL401	1-415-613-11 <1C>	DELAY LINE, Y			R320 R321 R322	1-216-198-00 1-216-065-00 1-216-051-00	METAL GLAZE METAL GLAZE METAL GLAZE	1K 4.7K 1.2K	5%	1/8W 1/10W 1/10W	
IC301 IC302	8-759-517-43 8-759-980-60 8-750-140-53	IC TDA4580-V7 IC TDA8442N3			R328 R329	1-216-051-00 1-216-311-00 1-216-311-00	METAL GLAZE	6.8 6.8		1/10W 1/10W	
I C331 I C332	8-759-140-55 8-759-521-22 8-759-505-39	IC TDA4650/V4 IC TDA4660V2			R331 R332 R333	1-216-311-00 1-216-001-00 1-216-184-00 1-216-121-00	METAL GLAZE METAL GLAZE METAL GLAZE METAL GLAZE METAL GLAZE	6.8 10 270 1M	5% 5% 5% 5% 5% 5%	1/10W 1/10W 1/8W 1/10W 1/10W	
	<011	L>			R335	1-247-852-11 1-216-061-00				1/4W	
L301 L302 L303 L331 L336	1-410-868-11 1-410-868-11 1-408-406-00 1-404-554-11	INDUCTOR INDUCTOR INDUCTOR COIL COIL	4.7UH 4.7UH 5.6UH		R336 R337 R338 R339	1-216-061-00 1-216-184-00 1-216-001-00 1-216-033-00	METAL GLAZE METAL GLAZE	3.3K 270 10 220	5% 5% 5% 5%	1/10W 1/8W 1/10W 1/10W	
L338 L1301 L1302	1-408-409-00 1-408-425-00 1-408-419-00	INDUCTOR INDUCTOR INDUCTOR	10UH 220UH 68UH		R341 R342 R344 R346 R347	1-216-031-00 1-216-041-00 1-216-089-00 1-216-202-00 1-216-073-00	METAL GLAZE	180 470 47K 1.5K 10K	5% 5% 5% 5% 5%	1/10W 1/10W 1/10W 1/8W 1/10W	
	<tra< td=""><td>NSISTOR&gt;</td><td></td><td></td><td>R348</td><td>1-216-089-00</td><td>METAL GLAZE</td><td>47K</td><td></td><td>1/10W</td><td></td></tra<>	NSISTOR>			R348	1-216-089-00	METAL GLAZE	47K		1/10W	
0301 0303 0305 0306	8-729-120-28 8-729-120-28 8-729-901-06 8-729-119-78	TRANSISTOR 2SC TRANSISTOR 2SC TRANSISTOR DTA TRANSISTOR 2SC	1623-L5L6 1623-L5L6 144EK 2785-HFE		R350 R351 R354	1-216-045-00 1-216-045-00 1-216-033-00 1-216-033-00	METAL GLAZE METAL GLAZE METAL GLAZE	680 680 220 220	5%%%%% 5%%%%% 5%%%%%%%%%%%%%%%%%%%%%%%	1/10W 1/10W 1/10W 1/10W	
Q311 Q312 Q313 Q316	8-729-120-28 8-729-120-28 8-729-120-28 8-729-120-28	TRANSISTOR 2SC TRANSISTOR 2SC TRANSISTOR 2SC TRANSISTOR 2SC	1623-L5L6 1623-L5L6 1623-L5L6 1623-L5L6		R355 R356 R358 R359	1-216-061-00 1-216-069-00 1-216-033-00 1-216-089-00 1-216-089-00	METAL GLAZE METAL GLAZE METAL GLAZE	3.3K 6.8K 220 47K 47K	55555555555555555555555555555555555555	1/10W 1/10W 1/10W 1/10W 1/10W	
Q330 Q331	8-729-216-22 8-729-901-00	TRANSISTOR 2SA TRANSISTOR DTC	1162-G 124EK		R361	1-216-057-00 1-216-055-00	METAL GLAZE			1/10W 1/10W	
9332 9333 9334 9335	8-729-216-22 8-729-216-22 8-729-120-28 8-729-120-28	TRANSISTOR 2SA TRANSISTOR 2SA TRANSISTOR 2SC TRANSISTOR 2SC	1162-G 1162-G 1623-L5L6 1623-L5L6		R364 R365 R366	1-216-059-00 1-216-047-00 1-216-059-00		2.2K 1.8K 2.7K 820 2.7K	5% 5% 5%	1/10W 1/10W 1/10W	
Q381 Q382 Q1301 Q1306	8-729-901-00 8-729-120-28 8-729-901-00 8-729-120-28	TRANSISTOR DTC TRANSISTOR 2SC TRANSISTOR DTC TRANSISTOR 2SC	124EK		R367 R370 R372 R376 R377	1-216-033-00 1-216-033-00 1-216-023-00 1-249-429-11 1-216-037-00	METAL GLAZE METAL GLAZE METAL GLAZE CARBON METAL GLAZE	220 220 82 10K 330	5% 5% 5% 5%	1/10W 1/10W 1/10W 1/4W 1/4W	
42240			.1029 2320		R378	1-216-097-00	METAL GLAZE	100K		1/10W	
JR385 JR390	1-216-206-00 1-216-295-00	METAL GLAZE	2.2K 5% 0 5% 220 5%	1/8W 1/10W	R379 R380 R381 R382	1-216-089-00 1-216-071-00 1-216-093-00 1-216-107-00	METAL GLAZE METAL GLAZE METAL GLAZE METAL GLAZE	47K 8.2K 68K 270K	5% 5% 5% 5%	1/10W 1/10W 1/10W 1/10W	
R301 R302 R303	1-249-409-11 1-249-409-11 1-249-409-11	CARBON	220 5% 220 5% 220 5%	1/4W 1/4W 1/4W	R383 R384 R385	1-216-115-00 1-216-029-00 1-216-085-00	METAL GLAZE METAL GLAZE METAL GLAZE	560K 150 33K	5% 5%	1/10W 1/10W 1/10W	
R304 R305 R307	1-249-409-11 1-216-057-00 1-216-097-00	METAL GLAZE METAL GLAZE	220 5% 2.2K 5% 100K 5%	1/4W 1/10W 1/10W	R387 R388	1-216-049-00 1-216-049-00	METAL GLAZE METAL GLAZE	1 K 1 K	5% 5% 5%	1/10W 1/10W	
R308 R309 R310	1-216-296-00 1-216-025-00 1-216-025-00	METAL GLAZE	0 5% 100 5%	1/8W 1/10W 1/10W	R389 R390 R392 R393	1-216-101-00 1-216-033-00 1-216-021-00 1-216-021-00	METAL GLAZE METAL GLAZE METAL GLAZE METAL GLAZE	150K 220 68 68	5% 5% 5% 5%	1/10W 1/10W 1/10W 1/10W	
R310 R311 R312	1-216-025-00 1-249-409-11	METAL GLAZE	100 5% 100 5% 220 5%	1/10W 1/4W	R394 R395	1-216-021-00	METAL GLAZE	68		1/10W 1/8W	
					しゅうかり	1-216-214-00	METAL GLAZE	4.7K	9 <b>6</b>	1/ OW	

The components identified by shading and mark  $\Delta$  are critical for safety.
Replace only with part number specified.



REF.NO. PART NO.	DESCRIPTION			REMARK	REF.NO.	PART NO.	DESCRIPTION			REMARK
R396 1-216-041-00 R398 1-216-081-00 R401 1-216-053-00 R402 1-216-051-00 R403 1-216-025-00	METAL GLAZE METAL GLAZE METAL GLAZE METAL GLAZE METAL GLAZE	470 5% 22K 5% 1.5K 5% 1.2K 5% 100 5%	1/10W 1/10W 1/10W 1/10W 1/10W		C109 C111 C115 C127 C128	1-163-133-00 1-124-925-11 1-124-925-11 1-124-122-11 1-124-910-11	ELECT ELECT	470PF 2.2MF 2.2MF 100MF 47MF	5% 20% 20% 20% 20%	50V 50V 50V 50V 50V
R404 1-216-059-00 R405 1-216-065-00 R406 1-216-061-00 R407 1-216-047-00 R410 1-216-184-00	METAL GLAZE METAL GLAZE METAL GLAZE	2.7K 5% 4.7K 5% 3.3K 5% 820 5% 270 5%	1/10W 1/10W 1/10W 1/10W 1/8W		C129 C138 C171 C172 C177	1-124-910-11 1-136-165-00 1-163-005-11 1-163-005-11 1-102-074-00	FILM CERAMIC CHIP CERAMIC CHIP	47MF 0.1MF 470PF 470PF 0.001MF	20% 5% 10% 10% 10%	50V 50V 50V 50V 50V
R412 1-216-053-00 R1301 1-216-065-00 R1305 1-216-001-00 R1307 1-216-037-00 R1308 1-216-295-00	METAL GLAZE METAL GLAZE METAL GLAZE METAL GLAZE	1.5K 5% 4.7K 5% 10 5% 330 5% 0 5%	1/10W 1/10W 1/10W 1/10W 1/10W			1-101-004-00 <ic> 8-759-979-62</ic>		0.01MF		50V
R1309 1-216-037-00	METAL GLAZE	330 5%	1/10W		9 	<c01< td=""><td>L&gt;</td><td></td><td></td><td></td></c01<>	L>			
RV331 1-238-012-11	RES, ADJ, CARB				L101	1-410-683-31 1-408-225-00 1-408-413-00 1-408-397-00	INDUCTOR INDUCTOR INDUCTOR	560UH 3.3UH 22UH 1UH		
X331 1-567-307-11 X332 1-567-131-00	OSCILLATOR, CR OSCILLATOR, CR	YSTAL				<tra< td=""><td>NSISTOR&gt;</td><td></td><td></td><td></td></tra<>	NSISTOR>			
**************************************	*******		******	******	Q113 Q114 Q115 Q116 Q125	8-729-120-28 8-729-120-28 8-729-120-28 8-729-120-28 8-729-900-89	TRANSISTOR 2 TRANSISTOR 2 TRANSISTOR 2	SC1623-L5L6 SC1623-L5L6 SC1623-L5L6		
*4-341-752-01	EYELET				Q126 Q181	8-729-901-06 8-729-120-28	TRANSISTOR D'TRANSISTOR 2			
<co!< td=""><td>NECTOR&gt;</td><td></td><td></td><td></td><td>   </td><td></td><td>ISTOR&gt;</td><td></td><td></td><td></td></co!<>	NECTOR>				 		ISTOR>			
F61 *1-580-690-11 F62 *1-580-690-11	PIN, CONNECTOR PIN, CONNECTOR SE>	PC BOARD PC BOARD	) 4P ) 4P		JR252	1-216-295-00 1-216-296-00 1-216-296-00 1-216-296-00	METAL GLAZE	0 5% 0 5% 0 5% 0 5%	1/10W 1/8W 1/8W 1/8W	
F1601A 1-576-231-21	FUSE (H.B.C.) HOLDER, FUSE;	4A/250V E1601			JR256	1-216-296-00 1-216-296-00	METAL GLAZE	0 5%	1/8W	
	TCH>					1-216-296-00 1-216-025-00 1-216-079-00 1-216-081-00	METAL GLAZE METAL GLAZE METAL GLAZE METAL GLAZE	0 5% 100 5% 18K 5% 22K 5%	1/8W 1/10W 1/10W 1/10W	· 1
******		:******** .ETE	******	******	R108 R110 R111 R116 R118	1-216-079-00 1-249-429-11 1-216-057-00 1-216-023-00 1-216-085-00	METAL GLAZE CARBON METAL GLAZE METAL GLAZE METAL GLAZE	18K 5% 10K 5% 2.2K 5% 82 5% 33K 5%	1/10V 1/4W 1/10V 1/10V 1/10V	
<001	NNECTOR>				R128 R129	1-216-027-00 1-216-057-00	METAL GLAZE METAL GLAZE	120 5% 2.2K 5% 2.2K 5%	1/10 1/10	
A11 *1-565-393-11 A12 *1-565-393-11 A13 *1-565-503-11		ARD TO BOAR	D		R130 R157 R158	1-216-057-00 1-216-049-00 1-249-409-11	METAL GLAZE METAL GLAZE CARBON	2.2K 5% 1K 5% 220 5%	1/10 1/10 1/4W	
<cai C101 1-126-233-11</cai 	PACITOR> ELECT 2	22MF	20%	50 <b>V</b>	R159 R161 R162 R163 R164	1-249-409-11 1-216-089-00 1-216-095-00 1-216-095-00 1-216-075-00	CARBON METAL GLAZE METAL GLAZE METAL GLAZE METAL GLAZE	220 5% 47K 5% 82K 5% 82K 5% 12K 5%	1/4W 1/10W 1/10W 1/10W 1/10W	
C102	ELECT 4 ELECT 2	170MF 17MF 22MF ).1MF	20% 20% 20% 5%	16V 50V 50V 50V	R165 R167 R168 R169	1-216-075-00 1-216-059-00 1-216-089-00 1-216-059-00	METAL GLAZE METAL GLAZE METAL GLAZE METAL GLAZE	12K 5% 2.7K 5% 47K 5% 2.7K 5%	1/100 1/100 1/100 1/100	



The components identified by shading and mark  $\Delta$  are critical for safety.

Replace only with part number specified.

REF.NO	. PART NO.	DESCRIPTION	Į -			REMARK	REF.NO.	PART NO.	DESCRIPTION				REMARK
R181 R182 R193	1-216-049-00 1-216-065-00	METAL GLAZE	1K 4.7K	5% 5%	1/10W 1/10W 1/10W 1/10W 1/10W		J701	1-526-990-11	SOCKET, PICT	URE TU	BE		
R194 R195	1-216-073-00 1-216-017-00 1-216-017-00	METAL GLAZE METAL GLAZE	10K 47	5% 5%	1/10W 1/10W		t ! !	<c01< td=""><td>L&gt;</td><td></td><td></td><td></td><td></td></c01<>	L>				
R196	1-216-113-00						L704	1-408-415-00	INDUCTOR	330	H		
	<tun< td=""><td>CD&gt;</td><td></td><td></td><td></td><td></td><td>   </td><td><tra< td=""><td>NSISTOR&gt;</td><td></td><td></td><td></td><td></td></tra<></td></tun<>	CD>					 	<tra< td=""><td>NSISTOR&gt;</td><td></td><td></td><td></td><td></td></tra<>	NSISTOR>				
TU101			IV-816(P	LL))			0702 0703	8-729-119-78 8-729-906-70	TRANSISTOR 25	SC2785	-HFE		
.,,,,,	<b>∆</b> 1-465-301-11 <if< td=""><td></td><td> 020(</td><td>,</td><td></td><td></td><td>0704 0705</td><td>8-729-200-17 8-729-119-78</td><td>TRANSISTOR 25</td><td>SA1091 SC2785</td><td>-O -HFE</td><td></td><td></td></if<>		020(	,			0704 0705	8-729-200-17 8-729-119-78	TRANSISTOR 25	SA1091 SC2785	-O -HFE		
	<if 1 1-466-154-11</if 						1	8-729-906-70	TRANSISTOR BI	F871			
****	*******	***********	:*****	****	******	******	0708 0709	8-729-200-17 8-729-119-78 8-729-906-70	TRANSISTOR 25	SA1091 SC2785 F871	-U -HFE		
	*A-1638-018-A		IPLETE				Q710	8-729-200-17	TRANSISTOR 25	SA1091	-0		
	<b>*</b> 4-379-160-01	COVER (REAR	LID). C	V			1	<res< td=""><td>ISTOR&gt;</td><td></td><td></td><td></td><td></td></res<>	ISTOR>				
	*4-379-167-01	COVER (MAIN)	, cv				R704 R705 R706	8-729-119-78 8-729-906-70 8-729-200-17 <a href="RES">RES</a> 1-216-486-00 1-202-824-00 1-249-409-11 1-247-822-11 1-249-401-11 1-202-844-00	METAL OXIDE SOLID CARBON	8.2K 3.3K 220	5% 10% 5%	3₩ 1/2₩ 1/4₩	F
		NECTOR>	on on				R707 R708	1-247-822-11 1-249-401-11	CARBON CARBON	430 47	5% 5%	1/4W 1/4W	
C71 C72 C81 C82	*1-506-371-00 *1-568-881-51 *1-568-878-51 *1-508-765-00	PIN, CONNECT PIN, CONNECT PIN, CONNECT PIN, CONNECT	OR 2P OR 6P OR 3P OR (5MM	חדרי	H) 3P		R709 R710 R711 R712 R713	1-202-844-00 1-215-469-00 1-249-426-11 1-249-417-11 1-215-474-00	METAL CARBON CARBON	330K 100K 5.6K 1K 160K	1%	1/2W 1/4W 1/4W 1/4W 1/4W	
	<cap< td=""><td>ACITOR&gt;</td><td></td><td></td><td></td><td></td><td>R714</td><td>1-216-486-00</td><td>METAL OXIDE</td><td>8 28</td><td></td><td>3W</td><td>F</td></cap<>	ACITOR>					R714	1-216-486-00	METAL OXIDE	8 28		3W	F
C703 C704 C705 C706 C707	CAP  1-102-980-00  1-102-116-00  1-102-116-00  1-102-116-00	CERAMIC CERAMIC CERAMIC CERAMIC	270PF 680PF 180PF 680PF		10% 5% 10%	50V 50V 50V 50V	R715 R716 R717 R718	1-202-824-00 1-249-409-11 1-249-415-11 1-202-814-11	SOLID CARBON CARBON SOLID	3.3K 220 680 33K	10% 5% 5% 10%	1/2W 1/4W 1/4W 1/2W	
C708	1-162-114-00	CERAMIC	0.0047	MF		2KV 2KV	R719 R720	1-249-401-11 1-249-423-11	CARBON	47 3 3 K	5% 5%	1/4W 1/4W	
C709 C710 C711	1-162-114-00 1-102-116-00 1-123-947-00 1-101-880-00 1-102-980-00	CERAMIC ELECT CERAMIC	680PF 10MF		10% 20%	50V 250V 50V	R721 R722	1-202-842-11 1-202-848-00 1-249-417-11	SOLID	220K 680K 1K	10%	1/2W 1/2W	
C712	1-102-980-00	CERAMIC	270PF		5%	50V	R724	1-202-846-00			5% 10%	1/4W 1/2W	
C714 C716 C717	1-124-360-00 1-162-622-11	CERAMIC	1000MF 330PF		10%	16V 400V	R725 R726	1-202-838-00 1-202-824-00	SOLID SOLID	3.3K	10%	1/2W 1/2W	
C718 C719	1-102-114-00 1-102-114-00 1-102-114-00	CERAMIC CERAMIC CERAMIC	470PF 470PF 470PF		10% 10% 10%	50V 50V 50V	R727 R728	1-249-409-11 1-216-347-11	CARBON METAL OXIDE	220 0.68	5% 5%	1/4W 1W	F
			11011		10%	501	R729 R730	1-249-416-11 1-249-401-11	CARBON CARBON	820 47	5% 5%	1/4W 1/4W	
D701	<dio 8-719-110-14</dio 	DE> DIOĐE RD9.1E	'S-R3				R731 R732 R733	1-249-423-11 1-249-415-11	CARBON CARBON	3.3K 680	5% 5% 5%	1/4W 1/4W	
D702 D703	8-719-911-19 8-719-911-19	DIODE 188119 DIODE 188119	)				R734	1-249-415-11 1-249-405-11	CARBON	680 100	5% 5%	1/4W 1/4W	
D704 D705	8-719-911-19 8-719-911-19	DIODE 1SS119 DIODE 1SS119	)				R735 R736	1-215-493-00 1-216-486-00	METAL OXIDE	1M 8.2K	1% 5%	1/4W 3W	F
D706 D707	8-719-911-19 8-719-911-19	DIODE 1SS119 DIODE 1SS119					R737 R739	1-215-483-00 1-249-417-11	METAL CARBON	390K 1K	1% 5%	1/4W 1/4W	
D708 D709 D710	8-719-911-19 8-719-911-19 8-719-911-19	DIODE 188119 DIODE 188119 DIODE 188119	) 						ABLE RESISTOR				
D711 D713	8-719-300-33	DIODE RU-3AM	I				RV702	1-230-641-11 1-230-619-11	RES. ADJ. MET	AL GLA	ZE 110	M M	
נזוי	8-719-911-19	199119 אַעטנע					RV703 RV704	1-237-749-11 1-237-749-11	RES, ADJ, CAR RES, ADJ, CAR	BON 55 RON 55	00 00		
	<jac< td=""><td>K&gt;</td><td></td><td></td><td></td><td></td><td>******</td><td>**********</td><td>**********</td><td>*****</td><td>*****</td><td>*****</td><td>******</td></jac<>	K>					******	**********	**********	*****	*****	*****	******

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REF.NO. PART NO.	DESCRIPTION		REMARK	REF.NO.	PART NO.	DESCRIPTION	Į		REMARK
*A-1642-067-A	D BOARD, COMPLETE			C519	1-136-173-00	FILM	0.47MF	5%	50 <b>V</b>
4-200-001-11 4-201-023-01 *4-341-751-01 *4-341-752-01 *4-368-683-01	D BOARD, COMPLETE ***********************************	NG		C520 C521 C522 C523 C524	1-164-161-11 1-137-098-11 1-124-122-11 1-108-680-11 1-108-798-11	CERAMIC CHIF FILM ELECT MYLAR MYLAR	0.0022MF 0.1MF 100MF 0.001MF 0.0033MF	10% 10% 20% 10% 5%	50V 100V 50V 100V 50V
< CAI	DACITOD\			C525 C526 C527	1-163-117-00 1-163-103-00 1-137-098-11	CERAMIC CHIP	27PF	5% 5% 10%	50V 50V 100V
0002 1-163-205-00	CERAMIC CHIP 0.00	)1MF 5%	50V	C531 C532	1-124-190-00 1-124-122-11	ELECT ELECT	0.1MF 680MF 100MF	107	25V 50V
	ELECT 220M ELECT 1MF CERAMIC CHIP 100F	PF 5%	50V 16V 50V 50V	C533 C534 C536 C537	1-137-096-11 1-124-120-11 1-131-363-00 1-124-903-11	TANTALUM	0.068MF 220MF 4.7MF 1MF	10% 20% 10% 20%	100V 16V 16V 50V
CO10 1-124-120-11	CERAMIC CHIP 100F ELECT 220N CERAMIC CHIP 0.01	PF 5% (F 20%	50V 16V 50V	C538	1-108-680-11 1-163-129-00 1-163-009-11	MYLAR	0.001MF	10%	100 <b>v</b> 50 <b>v</b>
C013 1-137-098-11 C014 1-137-098-11	FILM 0.1N	4F 10%	100V 100V	C540 C592	1-163-009-11 1-124-122-11 1-163-129-00	ELECT	100MF	20%	50V 50V 50V 50V
C015 1-124-902-00 C016 1-163-141-00	ELECT 0.47 CERAMIC CHIP 0.00	JIME 36	50V 50V	C601 A	. 1-161-964-61	CERAMIC	0.0047MF		250V
C017 1-137-098-11 C018 1-163-127-00 C019 1-137-094-11	FILM 0.1N CERAMIC CHIP 270F FILM 0.04	PF 5%	100V 50V 100V	C604 A	. 1-161-964-61 . 1-161-964-61 . 1-125-318-11	ELECT (BLOCK)	220MF	207	250V 250V 400V
C021 1-163-117-00 C023 1-163-117-00	CERAMIC CHIP 100F	PF 5%	50V 50V	C605 C606	1-124-484-11 1-163-137-00	ELECT CERAMIC CHIP	220MF 680PF	20% 5%	35V 50V
C024 1-163-117-00 C027 1-124-910-11 C030 1-163-038-00	CERAMIC CHIP 100F ELECT 47MF	7 20%	50V 50V 25V	C607 C608 C611	1-137-028-11 1-124-927-11 1-124-910-11 1-108-680-11 1-136-539-11	FILM ELECT	1MF 4.7MF	10% 20% 20%	63V 50V 50V
C031 1-163-081-00	CERAMIC CHIP 0.22	••	25V	C612 C613	1-108-680-11 1-136-539-11	MYLAR FILM	0.001MF 0.0022MF	10%	100V 2KV
C033 1-163-181-00 C034 1-124-907-11	CERAMIC CHIP 100F ELECT 10MF	20%	25V 50V 50V	C614 C615	1-102-030-00 1-128-142-11	ELECT	330PF 1500MF	10% 20%	500V 25V
C251 1-124-903-11 C252 1-126-233-11	ELECT 22MF	20%	50V 50V	C616 C617 C618	1-102-030-00 1-124-122-11 1-162-115-00	CICCT	330PF 100MF 330PF	10% 20% 10%	500V 50V 2KV
C254 1-137-098-11 C255 1-124-636-00	ELECT 3300	01MF 10% 4F 10% 0MF 20%	50V 100V 25V	C619 C620	1-124-122-11 1-162-115-00 1-128-320-11 1-136-173-00 1-124-347-00 1-128-320-11 1-124-910-11 1-124-122-11	ELECT FILM	2200MF 0.47MF	20% 5%	16V 50V
C261 1-124-903-11 C262 1-126-233-11			50V 50V	C621 C622 C623	1-124-347-00 1-128-320-11 1-124-910-11	ELECT ELECT	100MF 2200MF	20% 20% 20%	160V 16V 50V
C263 1-163-009-11 C264 1-137-098-11 C265 1-124-564-11	ELECT 22MF CERAMIC CHIP 0.00 FILM 0.1M ELECT 4700	01MF 10% 10 10% 10 10% 10 10%	50V	C624	1-124-122-11 1-124-360-00	ELECT	100MF	20%	50V
C270 1-137-035-11	FILM 0.47	7MF 10%	100V	C626 C627	1-124-907-11 1-163-009-11	ELECT CERAMIC CHIP	10MF 0.001MF	20% 20% 10% 20%	16V 50V 50V
C274 1-137-035-11 C501 1-124-927-11 C502 1-124-927-11	ELECT 4.7M	1F 20% 1F 20%	100V 50V 50V	C631	1-124-927-11 1-163-009-11	ELECT CERAMIC CHIP	4.7MF 0.001MF	10%	50V 50V
C503 1-137-049-11 C504 1-163-121-00	FILM 0.01 CERAMIC CHIP 150F		400V 50V	C633 C801 C802	1-163-117-00 1-126-105-11 1-102-030-00	CERAMIC CHIP ELECT CERAMIC	100PF 1000MF 330PF	5% 20% 10%	50V 35V 500V
C505 1-108-794-11 C506 1-137-102-11 C507 1-137-033-11	FILM 0.02		50V 250V 100V	C804	1-123-948-00	ELECT CERAMIC	22MF	20%	250V 2KV
C508 1-137-102-11 C509 1-137-098-11	FILM 0.02 FILM 0.1M	22MF 10%	250V 100V	C806 C807	1-137-098-11 1-106-395-00	FILM MYLAR	0.0047MF 0.1MF 0.15MF	10% 10%	100V 200V
C510 1-161-959-00 C511 1-108-686-11 C512 1-137-098-11	CERAMIC 22PF MYLAR 0.00	)33MF 10%	500V 100V	C810 C811		ELECT FILM	33MF 1MF	5%	160V 200V
C512 1-137-098-11 C513 1-163-125-00 C514 1-137-028-11	FILM 0.1M CERAMIC CHIP 220P FILM 1MF		100V 50V 63V	C812   C813   C814 ∧	1-124-634-11 1-102-212-00 .1-161-731-51	ELECT CERAMIC CERAMIC	1MF 820PF 0.001MF	20% 10% 10%	250V 500V 2KV
C515 1-124-903-11 C516 1-108-680-11	ELECT 1MF MYLAR 0.00	20%	50V 100V	C815	1-136-111-00 .1-136-549-11	FILM FILM	1MF 0.0106MF	5%	200V 1.4KV
C517 1-124-252-00 C518 1-124-902-00	ELECT 0.33	3MF 20%	50V 50V		. 1-129-721-51 . 1-161-731-51	FILM CERAMIC	0.039MF 0.001MF	10% 10%	630V 2KV



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REF.NO. PART NO.	DESCRIPTION	REMARK	REF. NO.	PART NO.	DESCRIPTION	REMARK
C824 1-102-212-00	CERAMIC 820PF 10%	400V 2KV 50V 400V 500V	D601 A D602 D603 D604 D605	8-719-510-63 8-719-300-33 8-719-911-55 8-719-911-55 8-719-911-55	DIODE UOSG DIODE UOSG	
C825 1-137-102-11 C1601本 1-136-518-11 C1602本 1-136-519-11 C1603本 1-164-246-51 C1605本 1-164-246-51	FILM 0.022MF 10% FILM 0.33MF 20% FILM 0.47MF 20% CERANIC 0.0022MF 20% CERANIC 0.0022MF 20%	250V 300V 300V 400V 400V	D606 D607 D608 D609 D610	8-719-300-33 8-719-300-33 8-719-929-71	DIODE RU-3AM DIODE RU-3AM DIODE RU-3AM DIODE HZS33NB1 DIODE CTU-12S	
C1607 <b>A</b> 1-161-964-61	CERANIC 0.0047MF = 4 1 1 1	250₹	D611 D612 D613	8-719-300-59	DIODE ERD29-08J DIODE CTU-12S DIODE EGP20G	
<fii CF001 1-577-364-11</fii 	TER>		D614 D616	8-719-979-85	DIODE EGP20G DIODE RD6.2ES-L3	
CF501 1-567-888-11	CERAMIC 0.0047MF  LTER>  VIBRATOR, CERAMIC OSCILLATOR, CERAMIC  NNECTOR>  PIN, CONNECTOR 6P  PIN, CONNECTOR 7P		D617 D618 D619	8-719-109-89 8-719-929-71	DIODE 1SS119 DIODE RD5.6ES-B2 DIODE HZS33NB1	
D1 *1-568-881-51	PIN, CONNECTOR 6P		D620 D621	8-719-800-76 8-719-929-71	DIODE 1SS226 DIODE HZS33NB1	
D2	PIN, CONNECTOR 7P PIN, BOARD TO BOARD CONNECTOR PIN, BOARD TO BOARD CONNECTOR PLUG, CONNECTOR (2.5MM PITCH)		D622 D623 D624 D630 D801	8-719-911-19 8-719-911-19 8-719-911-19 8-719-110-39 8-719-300-33	DIODE 1SS119 DIODE 1SS119 DIODE 1SS119 DIODE RD15ES-B1 DIODE RU-3AM	
D21 *1-565-394-11 D22 *1-565-394-11 D31 *1-565-394-11 D32 *1-565-394-11 D33 *1-565-394-11	PIN, CONNECTOR 6P PIN, CONNECTOR 7P PIN, BOARD TO BOARD CONNECTOR PIN, BOARD TO BOARD CONNECTOR PLUG, CONNECTOR (2.5MM PITCH)  PIN, BOARD TO BOARD CONNECTOR CONNECTOR, HINGE (RECEPTACLE) PIN, CONNECTOR 6P CONNECTOR HINGE (RECEPTACLE)		D802 D803 D804 D805	8-719-300-33 8-719-976-64 8-719-911-55 8-719-911-55	DIODE RU-3AM DIODE RGPO2-17 DIODE UO5G DIODE UO5G	
062 #1 505 205 11	DIN CONSCROP OF		1			
D65 *1-508-765-00	PIN, CONNECTOR (5MM PITCH) 3P		IC001	<1C> 8-759-047-60	IC SDA20560-A012	
D66 *1-508-786-00 D82 *1-508-765-00 D83 *1-508-786-00 D84 *1-580-798-11	PIN, CONNECTOR (5MM PITCH) 3P PIN, CONNECTOR (5MM PITCH) 2P PIN, CONNECTOR (5MM PITCH) 3P PIN, CONNECTOR (5MM PITCH) 2P CONNECTOR PIN (DY) 6P		IC002 IC003 IC005 IC251	8-759-000-47 8-759-945-58 8-759-748-56 8-759-988-94	IC MC14051BCP IC RC4558P IC SDA2546 IC TDA2050	
D801 *1-508-765-00	PIN, CONNECTOR (5MM PITCH) 3P		1 C261	4-812-134-00 8-759-988-94	RIVET NYLUN, 3.5; IC251 IC TDA2050	e.
<dio D001 8-719-929-03</dio 			10501	4-812-134-00 8-759-970-73 8-759-944-57	IC TEA2028B	
D001 8-719-929-03 D002 8-719-929-03 D003 8-719-911-19 D005 8-719-109-89 D006 8-719-929-71	DIODE HZS6.8NB3 DIODE HZS6.8NB3 DIODE 1SS119 DIODE RD5.6ES-B2 DIODE HZS33NB1		IC601 IC604	8-759-988-95 8-759-510-52 8-759-929-62	IC TEA2260 IC TEA7605	
D007 8-719-982-08 D009 8-719-109-89	DIODE MTZJ-3.9B DIODE RD5.6ES-B2		† † †	<001	L>	
D010 8-719-120-78 D011 8-719-120-78 D012 8-719-911-19	DIODE RD6.2ES-L3 DIODE RD6.2ES-L3 DIODE 1SS119		L501 L601 L602 L603	1-408-225-00 1-420-872-00 1-410-396-41 1-410-396-41	INDUCTOR 3.3UH COIL, AIR CORE FERRITE BEAD INDUCTOR FERRITE BEAD INDUCTOR	
D013 8-719-929-03 D271 8-719-110-36 D272 8-719-911-19 D501 8-719-911-19 D504 8-719-911-55	DIODE RD13ES-B2		L604 L605 L606 L607	1-410-671-31 1-459-585-11 1-412-529-11 1-410-671-31	INDUCTOR 47UH  COIL (WITH CORE) (DRUM TYPE) INDUCTOR 22UH INDUCTOR 47UH	
D506 8-719-800-76 D508 8-719-911-19	DIODE 1SS226 DIODE 1SS119		L803 L804	1-459-104-00 1-408-239-00	COIL, WITH CORE INDUCTOR 4.7MMH	
D511 8-719-911-55 D512 8-719-911-55 D513 8-719-928-85	DIODE U05G		L805 L806 L809 L810	1-459-652-12 1-459-115-00 1-420-872-00 1-459-390-00	HLC COIL,DCC-H COIL, AIR CORE COIL (WITH CORE)	

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REF.NO. PART NO. DESCRIPTION <transformer></transformer>	REMARK	REF.NO.	PART NO.	DESCRIPTION		REMARK
<pre></pre>		R012 R013 R014	1-216-073-00 1-216-073-00 1-216-085-00	METAL GLAZE METAL GLAZE METAL GLAZE	10K 5% 10K 5% 33K 5%	1/10W 1/10W
TOO1 1-427-000-00 NDT		1	1-216-061-00 1-216-085-00 1-216-748-11	METAL GLAZE	3.3K 5% 33K 5% 39K 5%	1/10W 1/10W 1/10W
1802 A 1-439-416-51 TRANSFORMER ASSY, FLYBACK (1	UX-1650)	R020 R021	1-216-095-00 1-216-025-00 1-216-025-00 1-216-065-00	METAL GLAZE METAL GLAZE METAL GLAZE	82K 5% 100 5% 100 5% 4.7K 5% 4.7K 5%	1/10W 1/10W 1/10W 1/10W
PS601  1-532-984-91 LINK, IC (ICP-N50) 2A PS602  1-532-984-91 LINK, IC (ICP-N50) 2A PS603  1-532-679-91 LINK, IC (ICP-N15) 0.6A PS604  1-532-984-91 LINK, IC (ICP-N50) 2A		R022 R024 R025 R026 R027 R028	1-216-065-00 1-216-073-00 1-216-073-00 1-216-182-00 1-216-025-00 1-216-025-00	METAL GLAZE METAL GLAZE METAL GLAZE METAL GLAZE	10K 5% 10K 5% 220 5% 100 5% 100 5%	1/10W 1/10W 1/10W 1/8W 1/10W 1/10W
<pre><transistor> Q001 8-729-901-01 TRANSISTOR DTC144EK</transistor></pre>		R029 R030	1-216-073-00 1-216-073-00	METAL GLAZE	10K 5% 10K 5%	1/10W 1/10W
Q002 8-729-901-01 TRANSISTOR DTC144EK Q003 8-729-216-22 TRANSISTOR 2SA1162-G Q004 8-729-216-22 TRANSISTOR 2SA1162-G Q005 8-729-901-01 TRANSISTOR DTC144EK		R031 R032 R033	1-216-081-00 1-216-073-00 1-216-073-00	METAL GLAZE	10K 5% 10K 5% 22K 5% 10K 5% 10K 5%	1/10W 1/10W 1/10W
Q006 8-729-901-01 TRANSISTOR DTC144EK Q007 8-729-120-28 TRANSISTOR 2SC1623-L5L6 Q008 8-729-120-28 TRANSISTOR 2SC1623-L5L6 Q009 8-729-120-28 TRANSISTOR 2SC1623-L5L6 Q010 8-729-120-28 TRANSISTOR 2SC1623-L5L6		R034 R035 R036 R037 R038	1-216-077-00 1-216-081-00 1-216-083-00 1-216-069-00 1-216-069-00	METAL GLAZE METAL GLAZE METAL GLAZE	15K 5% 22K 5% 27K 5% 6.8K 5% 6.8K 5%	1/10W 1/10W 1/10W 1/10W 1/10W
Q251 8-729-120-28 TRANSISTOR 2SC1623-L5L6 Q261 8-729-120-28 TRANSISTOR 2SC1623-L5L6 Q271 8-729-120-28 TRANSISTOR 2SC1623-L5L6 Q502 8-729-216-22 TRANSISTOR 2SA1162-G Q505 8-729-140-96 TRANSISTOR 2SD774-34		R039 R040 R041 R042 R043	1-216-081-00 1-216-077-00 1-216-073-00 1-216-049-00 1-216-041-00	METAL GLAZE METAL GLAZE METAL GLAZE	22K 5% 15K 5% 10K 5% 1K 5% 470 5%	1/10W 1/10W 1/10W 1/10W 1/10W
Q506 8-729-140-97 TRANSISTOR 2SB734-34 Q507 8-729-216-22 TRANSISTOR 2SA1162-G Q598 8-729-216-22 TRANSISTOR 2SA1162-G Q601 8-729-122-03 TRANSISTOR 2SA1220A-P Q602 8-729-209-02 TRANSISTOR 2SD1548-LB		R044 R045 R046 R047 R048	1-216-097-00 1-216-061-00 1-216-095-00 1-216-073-00 1-216-073-00	METAL GLAZE METAL GLAZE METAL GLAZE METAL GLAZE	100K 5% 3.3K 5% 82K 5% 10K 5% 10K 5%	1/10W 1/10W 1/10W 1/10W 1/10W
CTRANSISTOR		R049 R050 R051 R052 R053	1-216-073-00 1-216-067-00 1-216-041-00 1-216-049-00 1-216-049-00		10K 5% 5.6K 5% 470 5% 1K 5% 1K 5%	1/10W 1/10W 1/10W 1/10W 1/10W
Q608 8-729-120-28 TRANSISTOR 2SC1623-L5L6 Q609 8-729-320-62 TRANSISTOR 2SD789-34 Q801 8-729-120-28 TRANSISTOR 2SC1623-L5L6 Q804 8-729-304-50 TRANSISTOR 2SD1941-06 Q805 8-729-119-80 TRANSISTOR 2SC2688-LK		R058	1-216-049-00	METAL GLAZE METAL GLAZE METAL GLAZE METAL GLAZE METAL GLAZE	1K 5% 330 5% 10K 5% 100 5% 1K 5%	1/10W 1/10W 1/10W 1/10W 1/10W
<resistor></resistor>		R059 R060 R061	1-216-049-00 1-216-049-00 1-216-065-00	METAL GLAZE METAL GLAZE METAL GLAZE	1K 5% 1K 5% 4.7K 5% 1K 5% 1K 5%	1/10W 1/10W 1/10W
JR3 1-216-296-00 METAL GLAZE 0 5% 1/	'8W '8W '10W	R062 R063 R064	1-216-049-00 1-216-049-00 1-216-049-00	METAL GLAZE METAL GLAZE METAL GLAZE		1/10W 1/10W 1/10W
R001 1-216-041-00 METAL GLAZE 0 5% 1/ R001 1-216-041-00 METAL GLAZE 470 5% 1/	'8W '10W	R065 R066 R067	1-216-049-00 1-216-049-00 1-216-073-00	METAL GLAZE METAL GLAZE METAL GLAZE	1K 5% 1K 5% 1OK 5%	1/10W 1/10W 1/10W
R003 1-216-198-00 METAL GLAZE 1K 5% 1/ R004 1-216-049-00 METAL GLAZE 1K 5% 1/	/10W /8W /10W /10W	R068	1-216-174-00 1-216-174-00	METAL GLAZE	100 5%	1/8W 1/8W
R007 1-216-065-00 METAL GLAZE 4.7K 5% 1/	10W 10W	R070 R071 R072 R073	1-216-198-00 1-216-198-00 1-216-222-00 1-216-073-00	METAL GLAZE METAL GLAZE METAL GLAZE METAL GLAZE	1K 5% 1K 5% 1OK 5% 1OK 5%	1/8W 1/8W 1/8W 1/10W
ROUS 1-216-073-00 METAL GLAZE 10K 5% 1/ ROUS 1-216-073-00 METAL GLAZE 10K 5% 1/	10W 10W 10W	R075 R076	1-216-041-00 1-216-073-00	METAL GLAZE METAL GLAZE	470 5% 10K 5%	1/10W 1/10W



REF.NO.	PART NO.	DESCRIPTION				REMARK	REF.NO.	PART NO.	DESCRIPTION				EMARK
R078 R079 R080 R081 R083	1-216-198-00 1-216-073-00 1-216-073-00 1-216-073-00 1-216-049-00	METAL GLAZE METAL GLAZE METAL GLAZE METAL GLAZE METAL GLAZE	1 K 10 K 10 K 10 K 1 K	5% 5% 5% 5% 5%	1/8W 1/10W 1/10W 1/10W 1/10W		R534 R535 R536 R537 R538	1-216-119-00 1-249-753-15 1-216-129-00 1-216-083-00 1-216-101-00	METAL GLAZE METAL GLAZE	820K 4.7M 2.2M 27K 150K	5% 5% 5%	1/10W 1/4W 1/10W 1/10W 1/10W	
R084 R085 R086 R087 R088	1-216-049-00 1-216-049-00 1-216-049-00 1-216-035-00 1-216-059-00	METAL GLAZE METAL GLAZE METAL GLAZE METAL GLAZE METAL GLAZE	1K 1K 1K 270 2.7K	5% 5% 5% 5%	1/10W 1/10W 1/10W 1/10W 1/10W		R539 R540 R541 R542 R543	1-216-101-00 1-216-013-00 1-216-091-00 1-216-308-00 1-249-451-11	METAL GLAZE METAL GLAZE METAL GLAZE METAL GLAZE CARBON	150K 33 56K 4.7 2.2	55 55 55 55 55 55 55 55 55 55 55 55 55	1/10W 1/10W 1/10W 1/10W 1/4W	
R093 R094 R095 R096 R098	1-216-073-00 1-216-073-00 1-216-073-00 1-216-073-00 1-216-049-00	METAL GLAZE METAL GLAZE METAL GLAZE METAL GLAZE METAL GLAZE	10K 10K 10K 10K 1K	5% 5% 5% 5%	1/10W 1/10W 1/10W 1/10W 1/10W		R544 R545 R546 R547 R548	1-247-745-11 1-216-748-11 1-216-083-00 1-216-067-00 1-216-350-11	METAL GLAZE METAL GLAZE METAL GLAZE METAL OXIDE	330 39K 27K 5.6K 1.2 470		1/2W 1/10W 1/10W 1/10W 1/10W	
R251 R252 R253 R254 R255	1-216-065-00 1-216-039-00 1-216-073-00 1-216-357-00 1-216-073-00	METAL GLAZE METAL GLAZE METAL GLAZE METAL OXIDE METAL GLAZE	390 10K 4.7 10K	5% 5% 5% 5%	1/10W 1/10W 1/10W 1W 1/10W	F	R549 R550 R551 R552 R553	1-215-890-11 1-216-095-00 1-216-129-00 1-216-433-00 1-215-869-11	METAL GLAZE METAL GLAZE METAL OXIDE METAL OXIDE	82K 2.2M 1.2K 1K	5% 5%	2W F 1/10W 1/10W 1W 1W	
R256 R257 R258 R259 R261	1-216-115-00 1-216-077-00 1-215-869-11 1-216-065-00 1-216-065-00	METAL GLAZE METAL GLAZE METAL OXIDE METAL GLAZE METAL GLAZE		5% 5% 5%	1/10W 1/10W 1W 1/10W 1/10W	F	R557	1-216-037-00 1-216-129-00 1-216-025-00 1-216-065-00 1-216-113-00	METAL GLAZE METAL GLAZE	330 2.2M 100 4.7K 470K	5% % % % % % % % % % % % % % % % % % %	1/10W 1/10W 1/10W 1/10W 1/10W	
R262 R263 R264 R265 R266	1-216-039-00 1-216-073-00 1-216-357-00 1-216-073-00 1-216-115-00	METAL GLAZE METAL GLAZE METAL OXIDE METAL GLAZE METAL GLAZE	390 10K 4.7 10K 560K		1/10W 1/10W 1W 1/10W 1/10W	F	R559 R560 R591 R592 R593	1-216-069-00 1-216-037-00 1-216-047-00 1-216-049-00 1-216-053-00	METAL GLAZE METAL GLAZE METAL GLAZE	6.8K 330 820 1K 1.5K 8.2K	57 55 55 55 55 55 55 55 55 55 55 55 55 5	1/10W 1/10W 1/10W 1/10W 1/10W	
R268 R269 R270 R271	1-216-077-00 1-215-869-11 1-216-065-00 1-216-073-00 1-216-045-00	METAL GLAZE METAL OXIDE METAL GLAZE METAL GLAZE METAL GLAZE	15K 1K 4.7K 10K 680	5% 5% 5% 5% 5%	1/10W 1W 1/10W 1/10W 1/10W	F	R594 R597 R598 R601 R603	1-216-071-00 1-216-041-00 1-215-900-11 1-216-353-00 1-215-906-11	METAL OXIDE METAL OXIDE METAL OXIDE	470 22K 2.2 15	5% 5% 5% 5%	1/10W 1/10W 2W F 1W F 3W F	
R273 R274 R500 R501	1-216-073-00 1-216-073-00 1-216-073-00 1-216-115-00 1-216-041-00	METAL GLAZE METAL GLAZE METAL GLAZE METAL GLAZE METAL GLAZE	10K 10K 10K 560K 470	5% 5% 5% 5%	1/10W 1/10W 1/10W 1/10W 1/10W		R608	1-216-025-00 1-216-081-00 1-216-051-00 1-216-065-00 1-216-488-11	METAL GLAZE METAL GLAZE METAL OXIDE	100 22K 1.2K 4.7K 18K		1/10W 1/10W 1/10W 1/10W 3W F	
R503 R504 R505 R506	1-216-071-00	METAL GLAZE CARBON METAL GLAZE METAL GLAZE	8.2K	5% 5% 5%	1/10W 1/10W 1/4W 1/10W 1/10W		R610 R611 R612 R613	1-216-007-00 1-244-941-00 1-216-015-00 1-216-049-00 1-216-097-00		680K 39 1K 100K 100		1/10W 1/2W 1/10W 1/10W 1/10W	
R509 R510 R514 R515 R517	1-216-063-00 1-216-067-00 1-216-033-00 1-216-061-00 1-216-073-00	METAL GLAZE METAL GLAZE METAL GLAZE METAL GLAZE METAL GLAZE	3.9K 5.6K 220 3.3K 10K	5% 5% 5% 5%	1/10W 1/10W 1/10W 1/10W 1/10W		R614 R616 R617 R618 R619	1-205-758-11 1-216-099-00 1-216-037-00 1-216-431-11 1-216-073-00	METAL GLAZE METAL GLAZE METAL OXIDE METAL GLAZE	120K 330 560 10K	10% 5% 5% 5% 5%	1/10W 1/10W 1W F 1/10W	
R518 R519 R520 R521 R522	1-216-089-00 1-216-081-00 1-216-037-00 1-216-025-00 1-215-469-00	METAL GLAZE METAL GLAZE METAL GLAZE METAL GLAZE METAL	47K 22K 330 100 100K	5% 5% 5% 5% 1%	1/10W 1/10W 1/10W 1/10W 1/4W		R620 R621 R622 R623 R624	1-216-081-00 1-216-077-00 1-216-073-00 1-216-081-00 1-216-067-00	METAL GLAZE METAL GLAZE METAL GLAZE METAL GLAZE METAL GLAZE	22K 15K 10K 22K 5.6K	5% 5% 5% 5% 5%	1/10W 1/10W 1/10W 1/10W 1/10W	
R523 R524 R525 R526 R527	1-216-049-00 1-216-057-00 1-216-049-00 1-249-409-11 1-216-077-00	METAL GLAZE METAL GLAZE METAL GLAZE CARBON METAL GLAZE	1K 2.2K 1K 220 15K	5% 5% 5% 5%	1/10W 1/10W 1/10W 1/4W 1/10W	F	R625 R626 R628 R629 R631	1-215-865-11 1-216-037-00 1-216-001-00 1-216-037-00 1-216-465-11	METAL OXIDE  METAL GLAZE  METAL GLAZE  METAL GLAZE  METAL OXIDE	330 10 330 27K	5% 5% 5% 5% 5%	1W F 1/10W 1/10W 1/10W 2W	
R528 R529 R530 R533	1-216-031-00 1-216-069-00 1-249-448-11 1-216-031-00	METAL GLAZE METAL GLAZE CARBON METAL GLAZE	180 6.8K 1.2 180	5% 5% 5%	1/10W 1/10W 1/4W 1/10W	F	R633 R634 R635	1-216-049-00 1-216-430-11 1-216-073-00	METAL GLAZE METAL OXIDE METAL GLAZE	390 10K	5% 5% 5%	1/10W 1W F 1/10W	

The components identified by shading and mark  $\Delta$  are critical for safety. Replace only with part number specified.



REF.NO.	PART NO.	DESCRIPTION				REMARK	REF.NO.	PART NO.	DESCRIPTION				REMARK
R636 R643 R651 R653 R802	1-216-073-00 1-217-190-21 1-216-025-00 1-205-758-11 1-249-443-11	METAL GLAZE WIREWOUND METAL GLAZE WIREWOUND CARBON	10K 0.15 100 100 0.47	5% 5% 5% 10% 5%	1/10W 2W 1/10W 10W 1/4W	F F	C14 C15 C16 C17 C18	1-124-927-11 1-124-927-11 1-163-141-00 1-163-141-00 1-163-141-00	ELECT CERAMIC CHIP CERAMIC CHIP	0.001MF	21 21 51 52	07 07 7	50V 50V 50V 50V 50V
R805 R806 R807 R809 R810	1-249-448-11 1-216-093-00 1-215-869-11 1-202-821-11 1-202-818-00	CARBON METAL GLAZE METAL OXIDE SOLID SOLID	1.2 68K 1K 1.8K 1K	5% 5% 5% 10%	1/4W 1/10W 1W 1/2W 1/2W		C26 C27 C28 C29 C32	•	455 LV7 4 4015			Ž	25V 50V 50V 50V 25V
R811 R812 R815 R816 R817	1-215-863-11 1-247-285-00 1-215-884-11 1-215-868-00 1-216-049-00	METAL OXIDE CARBON METAL OXIDE METAL OXIDE METAL GLAZE	100 75K 47 680 1K	5% 5% 5% 5%	1W 1/2W 2W 1W 1/10W	F F	C33	1-163-038-00					25V
R820 R821 R822 R825 R826	1-249-403-11 1-247-725-11 1-217-778-11 1-216-349-00 1-216-097-00	CARBON CARBON FUSIBLE METAL OXIDE METAL GLAZE	68 10K 1K 1 100K	5% 5% 5% 5% 5%	1/4W 1/4W 1W 1W 1/10W	F F	CNV2	*1-565-393-11 *1-565-393-11 <dio< td=""><td>CONNECTOR, BO</td><td>DARD TO B</td><td>OARD</td><td></td><td></td></dio<>	CONNECTOR, BO	DARD TO B	OARD		
R827 R828 R829 R831 R16012	1-216-073-00 1-216-059-00 1-216-051-00 1-249-451-11 1-246-513-75	METAL GLAZE METAL GLAZE METAL GLAZE CARBON CARBON	10K 2.7K 1.2K 2.2 47K	5%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%	1/10W 1/10W 1/10W 1/4W		D5 D6	8-719-105-91 8-719-104-34 8-719-400-18 8-719-104-34 8-719-400-18	DIODE 1S2836 DIODE MA152WI DIODE 1S2836	<			
R16032 R16042 R16052	1-244-945-91 1-217-328-11 1-246-513-75 1-218-265-91 1-216-073-00	CARBON		5% 10% 5% 5% 5%	1/2W 7W 1/4W 1W 1/10W		D7 D9	8-719-105-52 8-719-106-17	DIODE RD6.8M	-B2 -B2			
R5503 R5504 R5505	1-216-308-00 1-216-121-00 1-216-001-00	METAL GLAZE METAL GLAZE METAL GLAZE	4.7 1M 10	5% 5% 5%	1/10W 1/10W 1/10W		IC1 IC2 IC3	8-759-039-18 8-759-045-54 8-759-510-49	IC SAA5246P/E	/M4A			
	<var< td=""><td>IABLE RESISTOR</td><td><b>!&gt;</b></td><td></td><td></td><td></td><td></td><td>&lt;01</td><td>L&gt;</td><td></td><td></td><td></td><td></td></var<>	IABLE RESISTOR	<b>!&gt;</b>					<01	L>				
RV502	1-238-013-11 1-238-016-11 1-238-011-11	RES, ADJ, CAR	RBON 10	)K			L1 L2 L3 L4	1-408-403-00 1-408-407-00 1-408-407-00 1-408-407-00	INDUCTOR INDUCTOR	3.3UH 6.8UH 6.8UH 6.8UH			
		RK GAP>						<10	LINK>				
SG801	1-519-422-11	GAP, SPARK					PS1 A	1-532-679-91	LINK, IC (IC	P-N15) 0.	6A /		free for the first of
	<the< td=""><td>RMISTOR&gt;</td><td></td><td></td><td></td><td></td><td></td><td><tra< td=""><td>NSISTOR&gt;</td><td></td><td></td><td></td><td></td></tra<></td></the<>	RMISTOR>						<tra< td=""><td>NSISTOR&gt;</td><td></td><td></td><td></td><td></td></tra<>	NSISTOR>				
	<b>▲ 1-808-059-32</b>						Q1		TRANSISTOR DI	C114EK			
**************************************						Q2 Q3 Q4 Q5	8-729-920-92 8-729-120-28 8-729-120-28 8-729-807-87		SD2096-EF SC1623-L5 SC1623-L5	L6 L6			
<capacitor></capacitor>						Q6 Q7		TRANSISTOR 25 TRANSISTOR 25 TRANSISTOR 25	SB1295-UL	6			
C1 C2	1-126-101-11 1-163-038-00	CERAMIC CHIP	100MF 0.1MF		20%	16V 25V	Q8	0-149-140-48	TRANSISTOR 25	DC 1073_F3	LO		
C1 C2 C3 C4 C5	1-124-120-11 1-163-077-00 1-124-120-11	ELECT CERAMIC CHIP ELECT	220MF		20%	16V 50V 16V	JR01	1-216-295-00	ISTOR> METAL GLAZE	0 5	<b>7</b> :	1/10	
C6 C10 C11 C12	1-163-038-00 1-163-038-00 1-163-038-00	CERAMIC CHIP CERAMIC CHIP CERAMIC CHIP	0.1MF 0.1MF 0.1MF			25V 25V 25V 25V	JR02 JR03 JR08 JR09	1-216-295-00 1-216-295-00 1-216-295-00 1-216-295-00	METAL GLAZE METAL GLAZE METAL GLAZE	0 5 0 5 0 5 0 5	% %	1/10V 1/10V 1/10V 1/10V	
Č13		CERAMIC CHIP	0.1MF			25V	JR11	1-216-295-00	METAL GLAZE	0 5	<b>%</b>	1/10	

# V H1 H2

REF.NO	PART NO.	DESCRIPTION				REMARK	REF.NO. PART NO. DESCRIPTION RI	EMARK
JR14 JR17 JR18 JR19 JR20	1-216-296-00 1-216-295-00 1-216-296-00 1-216-296-00 1-216-296-00	METAL GLAZE METAL GLAZE METAL GLAZE METAL GLAZE METAL GLAZE	0 0 0 0 0	5% 5%	1/8W 1/10W 1/8W 1/8W 1/8W		X1 1-579-266-31 CRYSTAL VIBRATOR X2 1-577-364-11 VIBRATOR, CERAMIC	:****
JR21 JR23 JR24 JR25 JR26	1-216-296-00 1-216-295-00 1-216-296-00 1-216-296-00 1-216-296-00	METAL GLAZE METAL GLAZE METAL GLAZE METAL GLAZE METAL GLAZE	0 0 0 0	5% 5% 5% 5%	1/8W 1/10W 1/8W 1/8W 1/8W		*1-638-744-11 H1 BOARD ********* <capacitor></capacitor>	
JR201 JR204 JR207 JR208 JR211	1-216-295-00 1-216-295-00 1-216-295-00	METAL GLAZE METAL GLAZE METAL GLAZE METAL GLAZE METAL GLAZE	0 0 0 0	5% 5% 5%	1/10W 1/10W 1/10W 1/10W 1/10W		C1651 1-102-106-00 CERAMIC 100PF 10% 50V C1652 1-102-106-00 CERAMIC 100PF 10% 50V C1653 1-102-074-00 CERAMIC 0.001MF 10% 50V C1655 1-102-074-00 CERAMIC 0.001MF 10% 50V	] 
JR213		METAL GLAZE	0	5%	1/10W		<connector></connector>	
JR219 JR220 JR223 R1	1-216-295-00	METAL GLAZE METAL GLAZE METAL GLAZE METAL GLAZE	0 0 0 470	5% 5% 5% 5%	1/8W 1/10W 1/10W 1/2W		H1-1 *1-568-881-51 PIN, CONNECTOR 6P H1-2 1-568-678-11 TERMINAL BLOCK, S 3P H1-4 *1-568-879-51 PIN, CONNECTOR 4P H1-05 1-562-837-11 JACK	
R3 R4	1-216-049-00 1-216-025-00	METAL GLAZE METAL GLAZE	1K 100	5% 5% 5%	1/10W 1/10W		H1-23 *1-568-879-51 PIN, CONNECTOR 4P	
R5 R6 R7	1-216-047-00 1-216-001-00 1-216-083-00	METAL GLAZE METAL GLAZE METAL GLAZE	820 10 27K	5% 5% 5%	1/10W 1/10W		H1-43 *1-564-512-11 PLUG, CONNECTOR 9P	
R8	1-216-071-00	METAL GLAZE	8.2K		1/10W 1/10W		<resistor></resistor>	
R9 R02 R10 R11	1-216-308-00 1-216-214-00 1-218-325-11 1-218-325-11	METAL GLAZE	4.7 4.7K 120 120	5% 5% 5% 5%	1/10W 1/8W 1/4W 1/4W		R1651 1-249-413-11 CARBON 470 5% 1/4W R1652 1-249-413-11 CARBON 470 5% 1/4W	
R12	1-218-325-11	METAL GLAZE	120		1/4W		<switch></switch>	
R13 R14 R15 R16	1-216-025-00 1-216-001-00 1-216-013-00 1-216-013-00	METAL GLAZE METAL GLAZE	100 10 33 33	5% 5% 5% 5%	1/10W 1/10W 1/10W 1/10W		\$1651 1-571-532-21 SWITCH, TACTIL \$1652 1-571-532-21 SWITCH, TACTIL \$1653 1-571-532-21 SWITCH, TACTIL	
R17 R18	1-216-013-00 1-216-025-00	METAL GLAZE METAL GLAZE	33 100	5% 5%	1/10W 1/10W		**************************************	*****
R19 R20 R21	1-216-025-00 1-216-041-00 1-216-041-00	METAL GLAZE METAL GLAZE METAL GLAZE	100 100 470 470	5% 5% 5%	1/10W 1/10W 1/10W 1/10W		*1-638-745-11 H2 BOARD *********  *4-374-987-01 GUIDE, LIGHT	
R22 R23	1-216-168-00	METAL GLAZE	56 4.7K		1/8W		*4-381-686-01 BRACKET (B), LIGHT GUIDE	
R24 R25	1-216-214-00 1-216-055-00 1-216-065-00		4.7K 1.8K 4.7K	5%	1/8W 1/10W 1/10W		<diode></diode>	
R26 R27	1-216-049-00	METAL GLAZE	1 K	5%	1/10W		D1651 8-719-948-31 DIODE LD-201VR *4-201-076-01 HOLDER, LED; D1651	
R28 R34	1-216-214-00 1-216-067-00 1-216-065-00	METAL GLAZE METAL GLAZE METAL GLAZE	4.7K 5.6K 4.7K	5% 5% 5%	1/8W 1/10W 1/10W		D1652 8-719-948-31 D10DE LD-201VR *4-201-076-01 H0LDER, LED; D1652 D1654 8-719-948-31 D10DE LD-201VR	
R35 R40	1-216-065-00 1-216-065-00	METAL GLAZE METAL GLAZE	4.7K 4.7K	5% 5%	1/10W 1/10W		*4-201-076-01 HOLDER, LED; D1654	
R41 R42	1-216-065-00 1-216-049-00	METAL GLAZE METAL GLAZE	4.7K 1K	5% 5%	1/10W 1/10W		<connector></connector>	
R44 R46 R47	1-216-295-00 1-216-065-00 1-216-065-00	METAL GLAZE METAL GLAZE METAL GLAZE	0 4.7K 4.7K	5% 5% 5% 5%	1/10W 1/10W		H2-2 *1-568-882-51 PIN, CONNECTOR 7P	
R49	1-216-049-00	METAL GLAZE	4.7K	5%	1/10W 1/10W		C	
R50	1-216-296-00	METAL GLAZE	0	5%	1/8W		IC1651 8-741-101-75 IC SBX1610-11	
DV.		IABLE RESISTOR					<resistor></resistor>	
RV1	1-238-012-11	RES, ADJ, CAR	RBON 1K				R1662 1-249-413-11 CARBON 470 5% 1/4W	
	<cry< td=""><td>STAL&gt;</td><td></td><td></td><td></td><td></td><td>***************************************</td><td>****</td></cry<>	STAL>					***************************************	****

J1

REF. NO. PART NO.									
	DESCRIPTION		REMARK	REF.NO.	PART NO.	DESCRIPTION			REMARK
*A-1651-023	A J1 BOARD, COMPLE	TE		C1429 C1430	1-163-029-11 1-163-003-11	CERAMIC CHIP CERAMIC CHIP		10%	50V 50V
C203 1-124-925-	APACITOR>	MF 20%	50V	C1431 C1432 C1433 C1436 C1437	1-126-529-11 1-124-902-00 1-124-122-11 1-163-009-11 1-163-009-11	ELECT ELECT ELECT CERAMIC CHIP CERAMIC CHIP		20% 20% 20% 10% 10%	50V 50V 50V 50V 50V
C205 1-124-927- C206 1-124-925- C207 1-124-927- C213 1-126-233-	1 ELECT 2.2 1 ELECT 4.7	MF 20% MF 20%	50V 50V 50V 50V	C1438 C1439 C1440 C1441	1-137-047-11 1-137-047-11 1-124-907-11 1-124-907-11	FILM FILM ELECT ELECT	0.01MF 0.01MF 10MF 10MF	10% 10% 20% 20%	400V 400V 50V 50V
C214 1-137-045- C217 1-137-045- C218 1-137-102- C219 1-137-102- C220 1-108-686-	1 FILM 0.0 1 FILM 0.0 1 FILM 0.0	068MF 10% 068MF 10% 122MF 10% 122MF 10% 033MF 10%	400V 400V 250V 250V 100V	C1442 C1443 C1444 C1445	1-137-098-11 1-137-098-11 1-124-910-11 1-102-824-00	FILM FILM ELECT CERAMIC	0.1MF 0.1MF 47MF 470PF	10% 10% 20% 5%	100V 100V 50V 50V
C221 1-108-686- C222 1-137-095-	1 FILM 0.0	033MF 10% 56MF 10%	100V 100V	C1501	1-102-824-00 1-124-927-11	CERAMIC ELECT	470PF 4.7MF	20%	50V 50V
C223 1-137-095- C224 1-137-047- C225 1-136-173-	1 FILM 0.0 0 FILM 0.4	7MF 5%	100V 400V 50V	C1504 C1505	1-124-903-11 1-108-680-11 1-124-910-11 1-137-094-11	ELECT MYLAR ELECT FILM	1MF 0.001MF 47MF 0.047MF	20% 10% 20% 10%	50V 100V 50V 100V
C226 1-136-173- C227 1-137-102- C228 1-137-104- C229 1-137-049- C230 1-137-049-	1 FILM 0.0 1 FILM 0.0 1 FILM 0.0	7MF 5% 22MF 10% 133MF 10% 15MF 10% 15MF 10%	50V 250V 250V 400V 400V	C1508 C1509 C1511	1-124-903-11 1-124-903-11 1-124-927-11	ELECT ELECT ELECT	0.0033MF 1MF 1MF 4.7MF	10% 20% 20% 20%	100 <b>V</b> 50 <b>V</b> 50 <b>V</b>
C231 1-124-902- C232 1-124-907- C233 1-163-005- C234 1-163-005- C235 1-163-005-	1 ELECT 10M 1 CERAMIC CHIP 470 1 CERAMIC CHIP 470	F 20% PF 10% PF 10%	50V 50V 50V 50V 50V	C1513	1-137-045-11 1-163-105-00 1-137-102-11 1-102-117-00	FILM CERAMIC CHIP FILM CERAMIC	0.0068MF 33PF 0.022MF 820PF	10% 5% 10%	400V 50V 250V 50V
C236 1-163-005-	1 CERAMIC CHIP 470	PF 10%	50V	1 1 1	<con< td=""><td>NECTOR&gt;</td><td></td><td></td><td></td></con<>	NECTOR>			
C237 1-124-902-	O ELECT 0.4								
C238	O CERAMIC CHIP 220 1 ELECT 470	PF 5% MF 20%	50V 50V 16V 50V	J1-41 : J1-43 :	1-565-838-11 *1-566-641-11 *1-564-524-11 *1-564-527-11	JACK BLOCK, F CONNECTOR, HI PLUG, CONNECT	NGE (TAB) OR 9P	18P	
C238 1-163-125-1 C239 1-126-103-1 C240 1-163-018-1 C241 1-163-038-1 C242 1-163-033-1 C243 1-163-033-1 C244 1-163-033-1	O CERAMIC CHIP 220 1 ELECT 470 0 CERAMIC CHIP 0.00	PF 5% MF 20% 056MF 10% 056MF 10% 22MF 22MF	50V 16V 50V 50V 50V 50V 50V	J1-41 : J1-43 : J1-44 :	*1-566-641-11	JACK BLOCK, F CONNECTOR, HI PLUG, CONNECT PLUG, CONNECT CONNECTOR, HI	NGE (TAB) OR 9P OR 12P		
C238 1-163-125-1 C239 1-126-103-1 C240 1-163-018-1 C241 1-163-018-1 C242 1-163-033-1 C243 1-163-033-1	O CERAMIC CHIP 220 1 ELECT 470 0 CERAMIC CHIP 0.00 1 ELECT 10M 1 ELECT 470 1 CERAMIC CHIP 3300 1 FILM 0.11	PF 5% MF 20% 056MF 10% 056MF 10% 22MF 22MF 22MF 22MF 22MF F 20% MF 20% MF 10% MF 10%	50V 16V 50V 50V 50V 50V	J1-41 : J1-43 : J1-44 :	*1-566-641-11 *1-564-524-11 *1-564-527-11 *1-566-641-11 <d10 8-719-110-14</d10 	JACK BLOCK, F CONNECTOR, HI PLUG, CONNECT PLUG, CONNECT CONNECTOR, HI	NGE (TAB) OR 9P OR 12P NGE (TAB)  -B3 -B3 -B3 -B2 -B2		
C238	O CERAMIC CHIP 220 1 ELECT 470 0 CERAMIC CHIP 0.00 1 ELECT 10M 1 ELECT 470 1 CERAMIC CHIP 3300 1 CERAMIC CHIP 0.01 1 CERAMIC CHIP 0.01 1 FILM 0.11 1 FILM 0.11 1 FLECT 47M 1 ELECT 47M 1 ELECT 47M 1 ELECT 47M 1 ELECT 22M	PF 5% MF 20% 056MF 10%  056MF 10% 22MF 22MF 22MF 22MF 22MF 20% MF 20% MF 10% 047MF  MF 10% MF 20%	50V 16V 50V 50V 50V 50V 50V 16V 50V 100V 50V	J1-41: J1-43: J1-44: J1-51: J1-51: J1-51: J1-61: J1-61: J1-61: J1-61: J1-61: J1-61: J1-61: J1-61: J1-61: J1-61: J1-61: J1-61: J1-61: J1-61: J1-61: J1-61: J1-61: J1-61: J1-61: J1-61: J1-61: J1-61: J1-61: J1-61: J1-61: J1-61: J1-61: J1-61: J1-61: J1-61: J1-61: J1-61: J1-61: J1-61: J1-61: J1-61: J1-61: J1-61: J1-61: J1-61: J1-61: J1-61: J1-61: J1-61: J1-61: J1-61: J1-61: J1-61: J1-61: J1-61: J1-61: J1-61: J1-61: J1-61: J1-61: J1-61: J1-61: J1-61: J1-61: J1-61: J1-61: J1-61: J1-61: J1-61: J1-61: J1-61: J1-61: J1-61: J1-61: J1-61: J1-61: J1-61: J1-61: J1-61: J1-61: J1-61: J1-61: J1-61: J1-61: J1-61: J1-61: J1-61: J1-61: J1-61: J1-61: J1-61: J1-61: J1-61: J1-61: J1-61: J1-61: J1-61: J1-61: J1-61: J1-61: J1-61: J1-61: J1-61: J1-61: J1-61: J1-61: J1-61: J1-61: J1-61: J1-61: J1-61: J1-61: J1-61: J1-61: J1-61: J1-61: J1-61: J1-61: J1-61: J1-61: J1-61: J1-61: J1-61: J1-61: J1-61: J1-61: J1-61: J1-61: J1-61: J1-61: J1-61: J1-61: J1-61: J1-61: J1-61: J1-61: J1-61: J1-61: J1-61: J1-61: J1-61: J1-61: J1-61: J1-61: J1-61: J1-61: J1-61: J1-61: J1-61: J1-61: J1-61: J1-61: J1-61: J1-61: J1-61: J1-61: J1-61: J1-61: J1-61: J1-61: J1-61: J1-61: J1-61: J1-61: J1-61: J1-61: J1-61: J1-61: J1-61: J1-61: J1-61: J1-61: J1-61: J1-61: J1-61: J1-61: J1-61: J1-61: J1-61: J1-61: J1-61: J1-61: J1-61: J1-61: J1-61: J1-61: J1-61: J1-61: J1-61: J1-61: J1-61: J1-61: J1-61: J1-61: J1-61: J1-61: J1-61: J1-61: J1-61: J1-61: J1-61: J1-61: J1-61: J1-61: J1-61: J1-61: J1-61: J1-61: J1-61: J1-61: J1-61: J1-61: J1-61: J1-61: J1-61: J1-61: J1-61: J1-61: J1-61: J1-61: J1-61: J1-61: J1-61: J1-61: J1-61: J1-61: J1-61: J1-61: J1-61: J1-61: J1-61: J1-61: J1-61: J1-61: J1-61: J1-61: J1-61: J1-61: J1-61: J1-61: J1-61: J1-61: J1-61: J1-61: J1-61: J1-61: J1-61: J1-61: J1-61: J1-61: J1-61: J1-61: J1-61: J1-61: J1-61: J1-61: J1-61: J1-61: J1-61: J1-61: J1-61: J1-61: J1-61: J1-61: J1-61: J1-61: J1-61: J1-61: J1-61: J1-61: J1-61: J1-61: J1-61: J1-61: J1-61: J1-61: J1-61: J1-61: J1-61: J1-61: J1-61: J1-61: J1-61: J1-61: J1-61: J1-61: J1-61: J1-61: J1-61: J1-61: J1-61: J1	*1-566-641-11 *1-564-524-11 *1-564-527-11 *1-566-641-11 <dio 8-719-110-14 8-719-110-14 8-719-110-03 8-719-110-03</dio 	JACK BLOCK, F CONNECTOR, HI PLUG, CONNECT PLUG, CONNECT CONNECTOR, HI DE> DIODE RD9.1ES DIODE RD9.1ES DIODE RD7.5ES DIODE RD7.5ES	NGE (TAB) 'OR 9P 'OR 12P 'NGE (TAB)		
C238	O CERAMIC CHIP 220 1 ELECT 470 0 CERAMIC CHIP 0.00 1 ELECT 470 1 CERAMIC CHIP 3300 1 FILM 0.11 1 CERAMIC CHIP 0.00 1 FILM 0.11 1 ELECT 47M 1 ELECT 1000 1 ELECT 47M 1 ELECT 1000 1 ELECT 1000 1 ELECT 47M 1 ELECT 10M 1 ELECT 47M	PF 5% MF 20% 056MF 10% 056MF 10% 22MF 22MF 22MF 22MF 22MF 20% MF 20% MF 20% MF 20% F	50V 16V 50V 50V 50V 50V 50V 50V 16V 50V 100V 50V	D201 D202 D205 D206 D1401 D1403 D1404 D1405 D1406 D1407 D1408 D1409 D1410 D1418	*1-566-641-11 *1-564-524-11 *1-564-527-11 *1-566-641-11 <dio 8-719-110-03="" 8-719-110-03<="" 8-719-110-14="" td=""><td>JACK BLOCK, F. CONNECTOR, HI PLUG, CONNECT PLUG, CONNECT PLUG, CONNECT CONNECTOR, HI  DE&gt;  DIODE RD9.1ES DIODE RD7.5ES DIODE RD9.1ES DIODE RD9.1ES DIODE RD9.1ES DIODE RD9.1ES DIODE RD7.5ES</td><td>INGE (TAB) OR 9P OR 12P NGE (TAB) I-B3 I-B3 I-B2 I-B2 I-B2 I-B2 I-B2 I-B2 I-B2 I-B2</td><td></td><td></td></dio>	JACK BLOCK, F. CONNECTOR, HI PLUG, CONNECT PLUG, CONNECT PLUG, CONNECT CONNECTOR, HI  DE>  DIODE RD9.1ES DIODE RD7.5ES DIODE RD9.1ES DIODE RD9.1ES DIODE RD9.1ES DIODE RD9.1ES DIODE RD7.5ES	INGE (TAB) OR 9P OR 12P NGE (TAB) I-B3 I-B3 I-B2 I-B2 I-B2 I-B2 I-B2 I-B2 I-B2 I-B2		
C238	O CERAMIC CHIP 220 1 ELECT 470 0 CERAMIC CHIP 0.00 1 ELECT 10M 1 ELECT 47M 1 ELECT 47M 1 ELECT 47M 1 ELECT 10M 1 ELECT 10M 1 ELECT 10M 1 ELECT 47M 1 ELECT 47M 1 ELECT 47M 1 ELECT 10M 1 ELECT	PF 5% MF 20% 056MF 10% 056MF 10% 22MF 22MF 22MF 22MF 22MF 10% 047MF 10% 047MF 10% 056MF 10% 056M	50V 16V 50V 50V 50V 50V 50V 50V 16V 50V 100V 50V 50V 50V 50V 50V 50V 50V	D1403 D1404 D1405 D1407 D1408 D1409 D1410 D1415 D1418 D1419 D1420 D1422 D1423	*1-566-641-11 *1-564-524-11 *1-564-527-11 *1-566-641-11 <dio 8-719-110-03="" 8-719-110-04="" 8-719-110-14="" 8-719-110-14<="" td=""><td>JACK BLOCK, F CONNECTOR, HI PLUG, CONNECT PLUG, CONNECT CONNECTOR, HI DE&gt;  DIODE RD9.1ES DIODE RD7.5ES DIODE RD9.1ES DIODE RD9.1ES DIODE RD9.1ES DIODE RD9.1ES DIODE RD9.1ES DIODE RD9.1ES</td><td>INGE (TAB)  OR 12P  OR 12P  NGE (TAB) </td><td></td><td></td></dio>	JACK BLOCK, F CONNECTOR, HI PLUG, CONNECT PLUG, CONNECT CONNECTOR, HI DE>  DIODE RD9.1ES DIODE RD7.5ES DIODE RD9.1ES DIODE RD9.1ES DIODE RD9.1ES DIODE RD9.1ES DIODE RD9.1ES DIODE RD9.1ES	INGE (TAB)  OR 12P  OR 12P  NGE (TAB)		

## J1

REF.NO. PART NO.	DESCRIPTION		REMARK	REF.NO.	PART NO.	DESCRIPTION				REMARK
D1504 8-719-911-19 D1505 8-719-911-19	DIODE 1SS119 DIODE 1SS119 DIODE 1SS119 DIODE 1SS119 DIODE 1SS119			R233 R234 R235	1-216-057-00 1-216-057-00 1-216-295-00	METAL GLAZE METAL GLAZE METAL GLAZE	2.2K 2.2K 0	5% 5%	1/10W 1/10W 1/10W	
D1506 8-719-982-33 D1507 8-719-911-19 D1510 8-719-911-19	DIODE MTZJ-36D DIODE 1SS119 DIODE 1SS119			R236 R240 R241 R242 R243	PART NO 1-216-057-00 1-216-057-00 1-216-295-00 1-216-033-00 1-216-091-00 1-216-091-00 1-216-075-00	METAL GLAZE METAL GLAZE METAL GLAZE METAL GLAZE METAL GLAZE	0 220 56K 56K 12K	5% 5%	1/10W 1/10W 1/10W 1/10W 1/10W	
<pre></pre>	IC TDA6200 IC CXA1114P IC TEA2014A IC UPD4053BC IC TEA2031A  CK>  SOCKET 21P SOCKET 21P  ANSISTOR>  TRANSISTOR 2SC1623-L5  TRANSISTOR 2SC1623-L5  TRANSISTOR 2SC1623-L5  TRANSISTOR 2SC1623-L5  METAL GLAZE 3.4K 5 METAL GLAZE 12K 5 METAL GLAZE 3.3K 5			R244 R245 R246 R247 R248	1-216-067-00 1-216-075-00 1-216-067-00 1-216-075-00 1-216-067-00	METAL GLAZE METAL GLAZE METAL GLAZE METAL GLAZE METAL GLAZE	5.6K 12K 5.6K 12K 5.6K	5%% 5%% 5%% 5%%	1/10W 1/10W 1/10W 1/10W 1/10W	
ĬĊĨ50Ĩ 8-759-942-Ĩ6	IC TEA2031A			R249 R250 R1400 R1401	1-216-075-00 1-216-067-00 1-216-295-00 1-216-023-00	METAL GLAZE METAL GLAZE METAL GLAZE METAL GLAZE	12K 5.6K 0 82 68	5% 5% 5%	1/10W 1/10W 1/10W 1/10W 1/8W	
J1402 1-561-534-41 J1403 1-561-534-41	SOCKET 21P SOCKET 21P			R1403 R1404 R1405	1-216-089-00 1-216-178-00 1-249-434-11	METAL GLAZE METAL GLAZE CARBON METAL CLAZE	47K 150 27K	555555	1/10W 1/8W 1/8W 1/4W 1/10W	
Q201 8-729-120-28 Q202 8-729-120-28 Q1401 8-729-216-22 Q1402 8-729-120-28	TRANSISTOR 2SC1623-L5 TRANSISTOR 2SC1623-L5 TRANSISTOR 2SA1162-G TRANSISTOR 2SC1623-L5	L6 L6 L6		R1408 R1409 R1410 R1411	1-216-089-00 1-216-041-00 1-216-089-00 1-216-041-00	METAL GLAZE METAL GLAZE METAL GLAZE METAL GLAZE METAL GLAZE	47K 47K 470 47K 47K	555555555555555555555555555555555555555	1/10W 1/10W 1/10W 1/10W 1/10W	
Q1403 8-729-120-28 Q1404 8-729-216-22	TRANSISTOR 2SC1623-L5 TRANSISTOR 2SA1162-G	Ĺ6		R1412 R1413	1-216-089-00 1-216-113-00	METAL GLAZE METAL GLAZE	47K 470K	5% 5%	1/10W 1/10W	
<res< td=""><td>SISTOR&gt;</td><td>9 1/100</td><td></td><td>R1415 R1416 R1417</td><td>1-216-083-00 1-216-083-00 1-216-023-00</td><td>METAL GLAZE METAL GLAZE METAL GLAZE</td><td>27K 27K 82</td><td>5% 5% 5% 5%</td><td>1/10W 1/10W 1/10W 1/10W</td><td></td></res<>	SISTOR>	9 1/100		R1415 R1416 R1417	1-216-083-00 1-216-083-00 1-216-023-00	METAL GLAZE METAL GLAZE METAL GLAZE	27K 27K 82	5% 5% 5% 5%	1/10W 1/10W 1/10W 1/10W	
R202 1-216-206-00 R203 1-216-075-00 R204 1-216-085-00 R205 1-216-085-00	METAL GLAZE 2.2K 5 METAL GLAZE 12K 5 METAL GLAZE 33K 5 METAL GLAZE 33K 5	% 1/8W % 1/10W % 1/10W % 1/10W		R1419 R1420 R1421	1-216-295-00 1-216-295-00 1-216-295-00 1-216-025-00	METAL GLAZE METAL GLAZE METAL GLAZE METAL GLAZE	0 0	55555555555555555555555555555555555555	1/2W F 1/10W 1/10W 1/10W 1/10W	
R206 1-216-061-00 R207 1-216-061-00 R208 1-216-077-00 R209 1-216-081-00 R210 1-216-077-00	METAL GLAZE 3.3K 5 METAL GLAZE 3.3K 5 METAL GLAZE 15K 5 METAL GLAZE 22K 5 METAL GLAZE 15K 5	% 1/10W % 1/10W % 1/10W % 1/10W % 1/10W		R1423 R1424 R1425 R1426	1-216-083-00 1-216-083-00 1-216-045-00 1-216-025-00	METAL GLAZE METAL GLAZE METAL GLAZE METAL GLAZE	27K 27K 680 100 10 470K	5% 5% 5%	1/10W 1/10W 1/10W 1/10W	
R211 1-216-097-00 R212 1-216-081-00 R213 1-216-077-00	METAL GLAZE 100K 5 METAL GLAZE 22K 5 METAL GLAZE 15K 5	% 1/10W % 1/10W % 1/10W		R1427 R1428 R1429	1-216-001-00 1-216-113-00 1-216-113-00	METAL GLAZE METAL GLAZE METAL GLAZE	10 470K 470K	5% 5%	1/10W 1/10W 1/10W	
R214 1-216-033-00 R215 1-216-081-00	METAL GLAZE 220 5 METAL GLAZE 22K 5	% 1/10W % 1/10W		R1430 R1431 R1432 R1433	1-216-170-00 1-216-041-00 1-216-041-00 1-216-033-00	METAL GLAZE METAL GLAZE METAL GLAZE METAL GLAZE	68 470 470 220	5555555	1/8W 1/10W 1/10W 1/10W	
R216 1-216-081-00 R217 1-216-077-00 R218 1-216-033-00 R219 1-216-073-00 R220 1-216-057-00	METAL GLAZE 22K 5 METAL GLAZE 15K 5 METAL GLAZE 22O 5 METAL GLAZE 10K 5 METAL GLAZE 2.2K 5	% 1/10W % 1/10W % 1/10W % 1/10W		R1434 R1437 R1440	1-249-393-11 1-249-434-11 1-216-045-00	CARBON CARBON METAL GLAZE	10 27K 680	55%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%	1/4W F 1/4W 1/10W	
R221 1-216-041-00 R222 1-216-041-00 R223 1-216-049-00 R224 1-216-049-00 R225 1-216-049-00	METAL GLAZE 470 5 METAL GLAZE 470 5 METAL GLAZE 1K 5 METAL GLAZE 1K 5 METAL GLAZE 1K 5	% 1/10W % 1/10W % 1/10W % 1/10W		R1441 R1442 R1443 R1444	1-216-045-00 1-216-089-00 1-216-033-00 1-216-033-00	METAL GLAZE METAL GLAZE METAL GLAZE METAL GLAZE	680 47K 47K 220		1/10W 1/10W 1/10W 1/10W	
R226 1-216-049-00 R227 1-216-033-00 R228 1-216-033-00 R229 1-216-075-00				R1446 R1447	1-216-095-00 1-216-033-00 1-216-033-00	METAL GLAZE METAL GLAZE METAL GLAZE	82K 220 220	5% 5% 5% 5%	1/10W 1/10W 1/10W	
R230 1-216-079-00	METAL GLAZE 1K 5 METAL GLAZE 220 5 METAL GLAZE 220 5 METAL GLAZE 12K 5 METAL GLAZE 18K 5			R1449 R1452	1-216-025-00 1-216-023-00 1-216-049-00 1-216-049-00	METAL GLAZE METAL GLAZE METAL GLAZE METAL GLAZE	100 82 1 K 1 K	5% 5% 5%	1/10W 1/10W 1/10W 1/10W	
R231 1-216-073-00 R232 1-216-073-00	METAL GLAZE 10K 5 METAL GLAZE 10K 5	% 1/10W % 1/10W			1-216-180-00	METAL GLAZE	180	5%	1/8W	

## J1 IFG

REF.NO.	PART NO.	DESCRIPTION						PART NO.				REMARK
R1457 R1459 R1460	1-216-180-00 1-216-025-00 1-216-025-00 1-216-053-00 1-216-190-00	METAL GLAZE METAL GLAZE METAL GLAZE METAL GLAZE METAL GLAZE	180 100 100 1.5K 470	5% 5% 5% 5%	1/8W 1/10W 1/10W 1/10W			*A-1654-005-A	IFG BOARD, C	OMPLETE ******		
R1462 R1463 R1464	1-216-057-00 1-216-049-00		2.2K 1K 3.3K 82 220	5% 5% 5% 5%	1/10W 1/10W 1/10W 1/10W 1/10W		C1 C2 C3 C4 C5	*A-1654-005-A <cap 1-163-031-11="" 1-163-031-11<="" td=""><td>CERAMIC CHIP CERAMIC CHIP CERAMIC CHIP CERAMIC CHIP CERAMIC CHIP</td><td>0.01MF 0.01MF 0.01MF 0.01MF 0.01MF</td><td></td><td>50V 50V 50V 50V 50V</td></cap>	CERAMIC CHIP CERAMIC CHIP CERAMIC CHIP CERAMIC CHIP CERAMIC CHIP	0.01MF 0.01MF 0.01MF 0.01MF 0.01MF		50V 50V 50V 50V 50V
R1467 R1468 R1469 R1470 R1471	1-216-025-00 1-216-025-00 1-216-025-00 1-216-025-00 1-216-023-00	METAL GLAZE METAL GLAZE METAL GLAZE METAL GLAZE METAL GLAZE	100 100 100 100 82	5% 5% 5%	1/10W 1/10W 1/10W 1/10W 1/10W		C6 C7 C8 C9 C10	1-163-031-11 1-124-903-11 1-124-907-11 1-130-471-00 1-163-121-00	CERAMIC CHIP ELECT ELECT MYLAR CERAMIC CHIP	0.01MF 1MF 10MF 0.001MF	20% 20% 5% 5%	50 V 50 V 50 V 50 V 50 V
R1473 R1474 R1476 R1477	1-216-089-00 1-216-089-00	METAL GLAZE METAL GLAZE METAL GLAZE METAL GLAZE	82 82 470K 47K 47K	5% 5% 5% 5%	1/10W 1/10W 1/10W 1/10W 1/10W		C13 C14 C15	1-163-119-00 1-136-298-00 1-124-477-11 1-124-477-11 1-124-477-11	ELECT ELECT ELECT	47MF 47MF 47MF	20% 20% 20%	50 V 100 V 16 V 16 V
R1482 R1483	1-216-113-00 1-216-190-00 1-216-178-00 1-216-178-00 1-216-073-00	METAL GLAZE METAL GLAZE METAL GLAZE METAL GLAZE METAL GLAZE	470 150 150 10K		1/10W 1/8W 1/8W 1/8W 1/10W		C16 C17 C18 C19 C20	1-124-477-11 1-124-907-11 1-137-047-11 1-137-047-11 1-126-233-11	ELECT ELECT FILM FILM ELECT	47MF 10MF 0.01MF 0.01MF 22MF	20% 20% 10% 10% 20%	16 V 50 V 40 O V 40 O V 50 V
R1487 R1488	1-216-073-00 1-216-073-00 1-216-065-00 1-216-065-00 1-216-065-00	METAL GLAZE METAL GLAZE METAL GLAZE METAL GLAZE METAL GLAZE	10K 10K 4.7K 4.7K 4.7K					1-126-233-11 1-137-098-11 1-137-031-11 1-124-034-51 1-137-102-11				50 V 10 0 V 10 0 V 16 V 25 0 V
R1503 R1504 R1505	1-216-081-00 1-216-083-00 1-216-113-00 1-216-085-00 1-216-081-00	METAL GLAZE METAL GLAZE METAL GLAZE METAL GLAZE METAL GLAZE	22K 27K 470K 33K 22K		1/10W 1/10W 1/10W 1/10W 1/10W		C26 C27 C28 C29 C30	1-137-094-11 1-124-903-11 1-163-109-00 1-124-903-11 1-124-903-11	FILM ELECT CERAMIC CHIP ELECT ELECT	0.047MF 1MF 47PF 1MF 1MF	10% 20% 5% 20% 20%	10 OV 50 V 50 V 50 V 50 V
R1510 R1511	1-216-113-00 1-216-105-00 1-216-067-00 1-216-049-00 1-216-073-00	METAL GLAZE	470K 220K 5.6K 1K 10K	5%	1/10W 1/10W 1/10W 1/10W 1/10W		C31 C32 C33 C34 C35	1-137-047-11 1-130-479-00 1-163-081-00 1-137-031-11 1-124-907-11	FILM MYLAR CERAMIC CHIP FILM ELECT	0.01MF 0.0047MF 0.22MF 0.22MF 10MF	10% 5% 10% 20%	40 OV 50 V 25 V 10 OV 50 V
R1514 R1515 R1516	1-216-091-00 1-216-049-00 1-216-117-00 1-216-079-00 1-216-033-00	METAL GLAZE METAL GLAZE METAL GLAZE METAL GLAZE METAL GLAZE	56K 1K 680K 18K 220	5%	1/10W 1/10W 1/10W 1/10W 1/10W		C36 C37 C38 C39	1-163-119-00 1-124-477-11 1-124-477-11 1-163-133-00	ELECT ELECT	47MF 47MF	20%	50 V 16 V 16 V 50 V
R1520 R1521	1-216-101-00 1-216-113-00 1-216-214-00 1-216-067-00	METAL GLAZE METAL GLAZE METAL GLAZE METAL GLAZE	150K 470K 4.7K 5.6K	5% 5% 5% 5%	1/10W 1/10W 1/8W 1/10W							
	<var< td=""><td>IABLE RESISTOR</td><td>•</td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></var<>	IABLE RESISTOR	•									
RV1502 RV1503 RV1504	1-238-023-11 1-238-016-11 1-238-017-11 1-238-012-11 1-238-023-11	RES, ADJ, CARE RES, ADJ, CARE RES, ADJ, CARE RES, ADJ, CARE RES, ADJ, CARE	ON 101 SON 221 SON 1K	K		 						
RV1507 RV1508 RV1509	1-238-017-11 1-238-009-11 1-238-016-11 1-238-023-11	RES, ADJ, CARE RES, ADJ, CARE RES, ADJ, CARE RES, ADJ, CARE	ION 220 ION 101 ION 470	) { )K								
*****	***** <b>*</b>	***********	*****	*****	******	******						



The components identified by shading and mark  $\triangle$  are critical for safety. Replace only with part number specified

REF. NO. PART NO. DESCRIPTION REMARK | REF. NO. PART NO. <FILTER> 1-404-751-11 DISCRIMINATOR, CERAMIC 1-404-750-11 DISCRIMINATOR, CERAMIC 1-527-840-00 FILTER, CERAMIC 1-527-839-00 FILTER, CERAMIC CDA1 CDA2 SFT1 <DIODE> D3 8-719-400-18 DIODE MA152WK <10> 8-759-003-90 IC TBA129 8-759-003-90 IC TBA129 8-759-030-48 IC TDA6600-2 IC1 IC2 ĬĈ3 8-759-513-48 IC TDA2595/V9 <CONNECTOR> IFG13 \*1-565-488-11 CONNECTOR, BOARD TO BOARD 12P <C01L> 1-408-410-00 1-408-410-00 L1 L2 L3 L4 L5 INDUCTOR 12UH INDUCTOR 12UH 1-410-064-11 INDUCTOR 2.7MMH 1-408-421-00 1-408-421-00 INDUCTOR 100UH INDUCTOR 100UH <TRANSISTOR> 8-729-901-00 TRANSISTOR DTC124EK Q3 Q4 8-729-216-22 8-729-901-00 TRANSISTOR 2SA1162-G TRANSISTOR DTC124EK <RESISTOR> 1-216-296-00 1-216-296-00 1-216-045-00 1/8W 1/8W 1/10W 1/10W METAL GLAZE METAL GLAZE JR8 0 5%%%% 5%%%% JR10 METAL GLAZE 680 R2 1-216-043-00 METAL GLAZE 560 R3 1-216-043-00 METAL GLAZE 1/10W **R5** 1-216-045-00 1/10W R6 R7 1/10W 1/10W 1-216-043-00 METAL GLAZE 560 1-216-043-00 METAL GLAZE 560 R9 1-216-073-00 1-216-095-00 METAL GLAZE 10K R11 METAL GLAZE 1/10W R12 1-216-097-00 METAL GLAZE 5% 5% 5% 5% 5% 5% 100K 1/10WR13 R15 1-216-071-00 METAL GLAZE 1/10W 1/10W 1/10W 8.2K 2.7K 1-216-059-00 METAL GLAZE R16 1-216-097-00 METAL GLAZE 100K R17 1-216-097-00 METAL GLAZE 100K 1/10W R18 R19 1-216-063-00 1-216-097-00 1-216-075-00 METAL GLAZE 3.9K 1/10W 5% 5% 5% 5% 5% 1/10W 1/10W METAL GLAZE 100K R20 METAL GLAZE 12K R22 1-216-099-00 120K METAL GLAZE 1/10W 1-216-089-00 METAL GLAZE 1/10W 47K R25 1-216-077-00 METAL GLAZE 15K 5% 1/10W

REF.NO. PART NO. DESCRIPTION REMARK
-----RV2 1-238-019-11 RES, ADJ, CARBON 47K

#### MISCELLANEOUS

A.1-426-383-11 COIL. DEMAGNETIZATION
A.1-451-295-11 DEFLECTION YOKE (Y21PFA2)
1-452-032-00 MAGNET, DISK; 10MM 
1-452-094-00 MAGNET, ROTATABLE DISK; 15MM 
1-452-277-00 MAGNET, BMC

1-544-728-11 SPEAKER (7.5X13CM)
Δ.1-590-501-11 CORD, POWER (WITH NOISE FILTER)

V901 A. 8-738-758-05 PICTURE TUBE (A51JXH61X)

## ACCESSORIES AND PACKING MATERIALS

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PART NO. DESCRIPTION REMARK
----
4-200-870-11 MANUAL, INSTRUCTION (GERMAN/ENGLISH/FRENCH/DUTCH/ITALIAN/PORTUGUESE)

\*4-200-923-01 CUSHION (UPPER) (ASSY)

\*4-200-925-01 CUSHION (LOWER) (ASSY)

\*4-384-027-01 BAG, PROTECTION

#### REMOTE COMMANDER

1-465-796-11 CONTROL UNIT, REMOTE (RM-816) 4-031-670-01 COVER, POCKET (FOR RM-816)

<VARIABLE RESISTOR>

RV1 1-238-016-11 RES, ADJ, CARBON 10K

Sony Corporation
TV Group

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